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ABSTRACT

This proceedings contains 57 presentations and presentation summaries concerned with rural special education. The papers are arranged in 11 sections: impacting governmental policy, at risk, collaborative education models, early childhood education, gifted, multicultural, parents and families, preservice and inservice teacher education, technology, transition, and other. Topics include agency cooperation related to Medicaid, statewide professional development systems, state advisory panel role, continuous program improvement, a peer-assisted self-management program, functional behavior data collection, rural school violence, teacher collaboration, Internet resources, use of assistive technology in early intervention, an online gifted education course, rural gifted education, cultural influences, distance learning on American Indian reservations, Hispanic students with disabilities in rural settings, special education on the Navajo reservation, parent role, home programs, teacher education, professional development, training regular teachers for inclusion, strategies and classroom techniques for various disabilities, rural teacher shortages, distance learning, distance consultation, transition to work, and paraprofessionals. An author index is included. (SV)

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American Council on Rural Special Education

2000 Conference Proceedings

Capitalizing on Leadership in Rural Special Education: Making a Difference for Children and Families

March 16-18, 2000
Alexandria, Virginia

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Edited by June Lemke
Gonzaga University
ACRES Program Co-Chair

RC 022337

We would like to dedicate this
2000 Conference Proceedings
to the memory of:

Dr. William Farley Young

Glenn County School System
Brunswick, Georgia

Bill Young was a long-time member of ACRES. His career in education spanned 36 years and he served as a teacher, supervisor of principals, director of pupil personnel services, and finally as superintendent of Glynn County School District in Georgia. He received many honors throughout his career, including the ACRES National Exemplary Program Award for Interagency Collaboration in 1993. He served two terms on the ACRES Board of Directors and played a key role as a voice for collaboration and cooperation between the local, state, and national levels.

Bill had been diagnosed with cancer two years ago; he went through extensive treatment, and thought he had beaten it. At Christmas this past year he found out the cancer had returned and was given one year to live. Unfortunately, he died January 13, 2000 at the age of 58. He is survived by his wife Verna, four grown children, five grandchildren, and his parents; all those whose lives he touched will miss him.

A website was created in Bill's honor by his son-in-law. You are invited to visit it at: http://www.mindspring.com/~jtfleming/wfy.htm

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ACRES

American Council on Rural Special Education

We welcome you to the published proceedings of the American Council on Rural Special Education National Conference, held in March 16-18 2000 in Alexandria, Virginia. The ACRES Annual National Conference is the only national conference devoted entirely to rural special education issues. It is especially valuable for educators, preservice educators, administrators, service providers, parents, and policy makers to share information and address critical issues affect the delivery of services for individuals with special needs living in rural areas.

The theme of this year's conference was "Capitalizing on Leadership in Rural Special Education: Making a Difference for Children and Families." This proceedings document includes an exciting array of papers arranged in twelve topical strands and represent a wide variety of approaches to the issues of paramount importance to those concerned with rural special education. It is our hope that these proceedings provide information that is helpful and informative. We are excited about the quality and diversity of the papers as well as their discussion of current issues.

Impacting Governmental Policy

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COLLABORATIVE WORKING RELATIONS WITH YOUR STATE MEDICAID OFFICE: WHAT'S IN IT FOR YOU?

Overview:

The Medicaid program was established in 1965 when Title XIX was added to the Social Security Act. (42 U.S.C. Section 1396 *et seq.;* 42 C.F.R. Parts 430 to 456. Like the Individuals with Education Act (I.D.E.A.), Medicaid is an example of "cooperative federalism". In this relationship, the federal and state (or federal, state and local) government share responsibilities for providing benefits, in this case, to the poor. The federal government sets general program criteria and provides financial assistance to the states. The states, or state and local government, are responsible for the administration of the program and meeting part of the program's costs.

States must choose to participate in the Medicaid program. In order to convey their choice, the states must prepare and submit a state medical assistance plan to the Health Care Financing Administration (HCFA). This state plan must meet the criteria established by the federal government. (42 U.S.C. Section 1390a(a)). The state plan must include more than four dozen provisions. Key provisions include: the assurance that the plan will be administered on a statewide basis and that a single state agency will be responsible for administration of the program. The state plan must also provide assurances regarding the state's financial contribution to the program, and identify the mandatory and optional services, which will be a part of the Medicaid program.

Despite the large number of federal program criteria, the states have extraordinary control over the operations of the Medicaid program. Examples include whether to participate at all; what services beyond the mandatory minimum to cover; which groups of persons to include; enrollment of and reimbursement rates for providers; all eligibility and coverage decisions; and the administrative process for reviews of eligibility and/or coverage denials. In addition, there are minimal requirements imposed on the states when they seek to change their state plans, whether to increase or decrease coverage.

The Medicaid Act can and should be viewed as a principal source of public funding for therapeutic interventions for children birth to 21 years of age. Medicaid is one of the largest programs in the federal budget and most assuredly one of the largest components of every state budget. Importantly for Medicaid-eligible recipients is the fact that Medicaid is an entitlement. Simply put, Medicaid services must be provided without limits set by budgetary appropriations. Eligible persons may access covered services and providers may provide covered services without fear that reimbursement will be denied by one of Medicaid's funding partners. Services cannot be denied due to exhaustion of appropriated resources. Unlike most programs, Medicaid's appropriation does not represent expressed limits on spending. The appropriated amounts merely represent the "best guess" of Congress and the state legislature.

According to federal law, there are four groups of poor people who may be eligible for Medicaid services. The four groups all but defy simple description. One group, the "categorically needy", must be eligible for services. In general and for the purposes of this paper, the categorically needy consist of two groups: families with children and the aged, blind, and disabled. The other three groups, referred to as the "optionally categorically needy", medically needy, and "waiver" populations are made eligible if the states chooses options available in federal law. Each of these groups may include a different population and may be eligible for different Medicaid services.

As stated above, the Medicaid Act lists eleven mandatory services which must be provided by the state Medicaid program to all categorically needy recipients, and if included in the state plan, the optionally categorically needy. These mandatory services are considered to include basic medical care and include: inpatient hospital care, outpatient hospital care, laboratory and x-ray services, skilled nursing facility services for persons over age 21; family planning services and supplies to individuals of child bearing age; physicians services; nurse midwife services; home health services, including medical supplies and equipment; rural health clinic services; services to pregnant women; and, early, periodic screening, diagnosis and treatment services for persons less than 21. (42 U.S.C. Section 1396a(a)(10)(A))

In addition to these mandatory services, the Act lists numerous additional services which state may choose to include in the Medicaid program and list in the state plan. These optional services are: Podiatrists' Services, Optometrists' Services, Chiropractors' Services, Private Duty Nursing, Clinic Services, Dental Services, Physical Therapy, Occupational Therapy, Speech, Hearing and Language Therapy, Prescribed Drugs, Dentures, Prosthetics Devices, Eyeglasses, Diagnostic Services, Screening Services, Preventive Services, Rehabilitation Services, Services for Persons Age 65 or Older in Mental Institution, Intermediate Care Facility Services, Intermediate Care Facilities for MR/DD Persons, Inpatient Psychiatric Services for Persons Under Age 22, Christian Science Schools, Skilled Nursing Facilities for Persons Under Age 21, Emergency Hospital Services, Personal Care Services, Transportation Services, and Other Practitioners' Services (42 U.S.C. Section 1396d).

As mentioned earlier, the Medicaid Act requires that a certain set of core services be provided to eligible recipients. Of key importance to birth to 21 year old population is the provision of Early, Periodic Screening, Diagnosis and Treatment Services (EPSDT). EPSDT is not a service, per se, but rather a provision enabling children below the age of 21 to receive services from the state's Medicaid program. The key to EPSDT coverage is what services this population will be entitled to receive.

EPSDT requires states to provide a screening that includes a health and developmental history, a comprehensive physical examination, vision and hearing testing, laboratory tests, and dental screenings for children over 3 years of age. States must have periodicity schedules established that define the frequency of screening and provide for treatment of any problems identified during these screenings. In April, 1990, significant specificity was added to the requirements. The Omnibus Budget Reconciliation Act (OBRA 89) mandated states to have individual periodicity schedules that meet "reasonable standards of medical and dental practice". Additionally, states now must provide all "treatment" for which federal reimbursement is allowed without regard to that service being listed in the state plan. The significance of OBRA '89 provisions is enormous. In essence, no Medicaid-eligible person less than 21 years of age can be covered of any medically necessary service for which federal reimbursement is available.

Given the general overview of the Federal Medicaid provisions and the enabling statutory and regulatory language of the Individuals with Disabilities Education Act of 1997 (IDEA 97), the foundation for a collaborative working relationship between Medicaid and Special Education was set. Congress made it clear that nothing in the implementing regulations of the IDEA 97 (20 U.S.C. §1400 et seq.) is intended to relieve an insurer, Medicaid, or other third party from an otherwise valid obligation to provide or pay for services to a student with a disability. In addition, a non-educational public agency may not disqualify an eligible service for Medicaid reimbursement because that service is provided in a school context (34 CFR §300.142(b)(ii).

The Maine Experience:

The Department of Education and the Bureau of Medical Services (Maine's Medicaid Office) began its working relationship in the mid-1970's. Child Development Services, Maine's program responsible for the birth to five population under the Individuals with Disabilities Education Act, was the first program in the Department of Education to work directly with the state's Medicaid office. Through the combined efforts of dedicated personnel within both departments, parents and providers a model program of collaboration was forged. Maine became one of the first states to use the concept of pooled funding to maintain, enhance or expand programming opportunities for its youngest citizens.

In 1990, through the insightful leadership of the state Director of Special Education, a part time contracted position was created to explore ways that Medicaid reimbursements could be used to augment funding to local schools. Shortly after this consultant was hired, the governor's office hired an outside consulting firm to identify ways that programs across state government could collaborate to build a seamless systems of service delivery for Maine's children and youth.

As a result of this effort, the Administrative Case Management pilot was developed. The underlying concept of this initiative focused on the recoupment of the indirect costs of the service delivery system and the recognition that schools could play an important role in the successful implementation of the EPSDT program. School nurses, guidance counselors, social workers, personnel service staff and psychologists provided an array of services which could be covered under the EPSDT program. Examples of the types of services targeted were: outreach, health and mental health screenings, health and mental health education, follow-ups with parents of children with health and mental health problems, and maintenance of health records.

In addition to this ACM initiative, the possibility of creating a rehabilitation option for local school administrative units was also recorded. Due to the reduction in force mechanism that was underway in state government, no follow up work on this initiative was undertaken at this time.

Before any SAU would agree to participate, however, it was necessary for the Commissioner of Education to ensure that the units would not be penalized financially for participation. To ensure this, the commissioner signed a mutually agreed upon document that recognized any revenue received as a result of participating in this initiative would not be offset by a reduction in general purpose aid. In other words, the state promised a maintenance of effort to the participating units and that any revenues received would be viewed as augmentation funding not replacement funding.

Three school administrative units were recruited to be the initial participants in this initiative. These SAU's represented a large urban district with a high number of state ward/state agency clients, the largest rural SAU, and a small rural district with a very active school based health center component. In the second year of the pilot, the state-funded school for the deaf was recruited to be a pilot. These districts entered into contractual arrangements with the local provider of EPSDT services in their regions. This pilot proved to be very successful and remained in effect until 1995 when the Medicaid program went to a managed care system of service delivery and ultimately subcontracted the EPSDT services being provided by its agents to a private entity.

By 1995, however, Maine's fiscal problems continued to worsen and the state found itself in the midst of a fiscal crisis. State fiscal and personnel resources had been significantly reduced over the proceeding several years. In terms of educational funding, the state's share of educational funding to local schools had been reduced repeatedly of several years, thus placing a greater financial responsibility for the education of Maine children on the local taxpayers. Despite the success of the ACM pilots, SAU's access of Medicaid reimbursement for health related services provided as part of the Special Education program was minimal. A limited number of SAU's enrolled as providers of services for some direct, fee-for-service programs (i.e., occupational therapy, physical therapy, speech/language services, and day treatment services). Receipts from these services, however, were negligible. Numerous perceived barriers to becoming Medicaid providers were cited by SAU's. Some of these barriers were: burdensome documentation requirements, physician referrals, qualification of providers, billing procedures, and threat of reduced general-purpose aid.

Realizing that something needed to be done, the governor's office instructed all departments within state government to examine all programs to ensure that these programs are being operated in the most economical and efficient manner possible. The governor entered into a contractual arrangement with another outside consulting firm and instructed the Departments of Human Services, Education, Mental Health, Mental Retardation and Substance Abuse Services and Corrections to work cooperatively with this consulting firm to pursue opportunities for increasing federal funding, both prospectively and retrospectively.

. At the time, taxpayers were contributing about $120 million toward the costs of special education. Through the use of an out of state consulting firm, it was estimated that approximately 40 to 50 million dollars could be qualified as health related expenses. It was determined that the State could use the Medicaid program to recover some of the costs for health related services provided by the Department of Education and the local schools. Efforts to assist the enrollment of local SAUs as Medicaid providers began. With the leadership of the Department of Education the majority of school administrative units within the state enrolled as providers in the voluntary program within a six-week period.

Costs identified included the health related portion of special education costs, such as occupational therapy, physical therapy, speech/language therapy, nursing services, vision services, hearing services, health screening, behavioral rehabilitation services, rehabilitative assistance and medical transportation. With the assistance of the this consulting firm, the State Departments of Human Services and Education worked collaboratively to establish a monthly blended payment system which reimburses SAUs for the full range of covered services included in the Individual Education Program (IEP).

In order to establish this blended rate, a rate setting study was conducted to determine the actual cost of providing each service and the historical utilization patterns for each service per disability category identified in the IDEA. The rate setting study examined the costs in 14 geographically diverse school units to determine the average cost of providing each service. One-thousand randomly selected special education students in these 14 schools were identified. The percentage of students within each disability group who use one or more of the covered services (utilization rate) was determined. Pursuant to repeated follow up with the regional office of the Health Care Financing Administration (HCFA), the blended rate was approved.

Concurrent with these conversations at the regional HCFA level, state personnel representing both Medicaid and the Office of Special Services began work on drafting policies to create the School Based Rehabilitation Services. Effective January 1, 1998, the School Based Rehabilitative Services program became a part of the Maine Medical Assistance Manual. Upon the adoption of the SBRS policy, SAU's began submitting retrospective and prospective claims. To date, the program has been judged to be a huge success. Highlights of the information gathered from local SAUs are included at the conclusion of this paper.

As part of the continuing implementation of the School Based Rehabilitation Services initiative, a small interagency work group has become institutionalized. This group is represented by policy and funding personnel from both the Office of Special Services and the Bureau of Medical Services. The purpose of this group is to act as a filter between the local schools and the respective Departments. Examples of the types of issues identified as potential "hot spots" by the field include: audit criteria, issues relating to "qualified provider" standards, release of information requirements, etc. Members of the work group use the information to determine collaborative training opportunities, identify areas of policy which may need revisions and/or further clarification, define specific target audiences for training, exchange information with licensing and credentialing bodies and to improve overall communication between the interest parties at the local schools and state agencies. It is the general consensus of group members that this strategy is very beneficial in improving the overall quality of the program and the provision of services.

Medicaid reimbursements for various health-related services delivered within the public school settings should be viewed as supplemental funding not as replacement funding. School Administrative Units have been cautioned and advised against using anticipated Medicaid revenues in their local budget projections. There are no maintenance of efforts provisions tied to Medicaid reimbursements. In fact, school may experience large fluctuations year to year in the amount of reimbursements received from the state Medicaid office.

Medicaid as one of the largest payers of health related services for children birth through 21 has a defined place in Maine's public school. The long-standing collaboration between the Bureau of Medical Services and the Office of Special Services has resulted in a cadre of reimbursable services, which are delivered within local school administrative units. The ultimate goals of the interagency collaboration are to improve access to services for Medicaid-eligible children while simultaneously assisting the school administrative units' efforts to support the costs of special education for children with disabilities.

Highlights of Medicaid Survey of School Administrative Units
January, 2000

Superintendents, business managers and Directors of Special Education in all two-hundred eighty-five school administrative units (SAU) received surveys. One hundred twenty six surveys representing individual SAUs were tallied and entered into the database. Ninty-seven percent of the school administrative units (SAU) that responded, reported billing Medicaid during FY 98-99. The majority (91%) indicated that they had billed for School Based Rehabilitation Services and 31% had billed for Day Treatment Services.

More than $22 million has been reimbursed to SAU in Maine through the Medicaid/Department of Education collaborative. These revenues have been utilized by the SAUs in a variety of ways. Almost half (48%) stated that they used the Medicaid revenues to maintain or expand special education and/or health related programs; more than a quarter of the respondents (28%) used the money to purchase equipment or materials related to special education and/or health related programming; and, approximately 11% of the SAUs allocated monies to pay for licensure, other professional fees and/or continuing professional education. Eleven SAU had not made a determination regarding allocation of Medicaid resources at the time of the survey.

64% of the reporting SAUs indicated that the record keeping responsibilities required by SBRS was at least "what was expected" or "easier than expected".

The need for on-going training was also identified. Fifty-eight percent were interested in further training pertaining to Medicaid and its programs. Eighty-one percent of those school units requesting further training identified Medicaid Reimbursable Services and information on how to bill Medicaid independently (60%) were identified as training topics of interest. Eighty-seven percent requested that these trainings be conducted in a face-to-face format as opposed to Distance Learning (19%) or Train-the-Trainer (16%).

Of the 126 SAU responding, 48 stated that they had some unanswered questions regarding the Medicaid Program. In general their questions can be grouped into four major topics: audit process and requirements, how to deal with State Wards State Agency Clients, billing procedures, and longevity of the program.

When asked if there were any suggestions for improving the Medicaid initiative, 47 respondents replied with a range of answers. In general, there appears to be a need for some type of consistent, ongoing communication between DOE and the SAUs, need for more informational meetings and trainings, a smoother audit process and improved working relations between Medicaid, the Department of Education and the independent billing service most SAUs have retained under contract.

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LEADERSHIP IN ACCOUNTABILITY FOR PROFESSIONAL DEVELOPMENT SYSTEMS

The Professional Development Leadership Academy is a project of national significance that supports states in transforming systems of professional development. The Academy complements the current policy focus on educational reform, with attention to higher standards and expectations for all learners, that has provoked significant controversy concerning systematic support for educators (Fowler, 2000; Fullan & Hargreaves, 1999; Ohanian, 2000). The call for educational systems to provide a talented, dedicated, well-prepared teacher for every learner poses a challenge for the ongoing professional development of educators. The concept of the Professional Development Leadership Academy develops leadership within participating states that have the commitment and talent to transform their system of professional development. This paper investigates accountability considerations that are necessary to determine the impact and results of professional development from a state systems perspective.

Content of the Academy

The knowledge base that supports the Professional Development Leadership Academy has evolved from two previous national projects of the National Institute on Comprehensive Systems of Personnel Development Collaboration (Council for Exceptional Children, 1998). The five areas of focus that comprise the Academy knowledge base include strategic thinking, leadership, organizational change, collaborative partnerships, and systems of accountability. A brief description of each area includes the following:

--Strategic thinking is the prerequisite to strategic planning and strategic action. Strategic thinking is a learned skill that considers new options for thinking beyond current issues and concerns of individuals and the organizations they serve (Bemowski, 1996; Scully, 1996; Uhlfelder, 1997).

--The purpose of leadership focus is to facilitate a system of leadership development that involves educational teams at the state, local, and higher education levels in developing new and enhanced knowledge, skills, and dispositions. These key leaders contribute as dynamic agents for systems change in professional development (Badaracco & Ellsworth, 1989; Quinn, 1996; Sergiovanni, 1999).

--Organizational change is concerned with empowering all levels of education practitioners to explore and identify change strategies. Change strategies result in enhanced systems thinking for the creation of learning communities (Covey, 1991; Horsley & Kaser, 1999).

--Collaborative partnerships depend on the right balance of leadership, support, resources, people, and action plans (Corcoran, 1995; Karasoff, 1998).

--Systems of accountability promote the shared responsibility between general and special educators for a balanced system of accountability including input/process accountability, individual student learning/results accountability, and system/outcome level accountability (Guskey, 1995; Sparks, 1995; National Association of State Directors of Special Education, 1996).

Three additional elements have been identified by the Academy to support the professional development curriculum, training, and project purpose. These include: technical assistance support; capacity building through the identification, development and support of state identified Project Associates; and, state systems of accountability for professional development that provide evidence of impact.

Technical assistance is provided through a detailed work plan that supports the content of the Academy's professional development curriculum within the context of the participating states' needs. A contract that specifies the types of support and activities that will be delivered is developed between the state education agency and project staff. Accountability for technical assistance, a shared responsibility between the participating agencies, guides the purpose and intended outcomes of the project's technical assistance providers.

Capacity building is accomplished through a variety of integrated strategies, the most notable being the development of Project Associates. Project Associates emerge from among the membership of the state leadership team for professional development systems. Individuals who are identified for this role within their state system have unique responsibilities for providing communication, coordination, and leadership to the state's long term efforts. A key expectation for Project Associates is to gain mastery level of performance on the five areas of Academy curriculum.

The unique nature of state education agencies and the system of public education provided within their discrete borders provides an expectation for individualized approaches to accountability for professional development. Each state team that participates in the Academy is expected to develop a system of accountability that provides evidence of success and impact regarding professional development.

Logic Models of Planned Change

Professional development is sometimes implemented with little attention to the impact or intended outcome of the enterprise. Frequently the most telling measures of professional development program impact become inconsequential process measures such as the following: consumer enjoyment of the experiences and activities provided; environmental factors such as room temperature and the comfort of the participants' work space; and unrelated factors including the quality of food and drink provided during the course of the professional development experiences. This reliance on process measures has very little to do with connecting the value of professional development with outcomes for educators and the students being educated. In response to this common dilemma, advocates of accountability have advanced clear methods for describing and evaluating programs in new ways. Logic models of planned change represent logical linkages among program resources, activities, outputs, customers reached, and short, intermediate, and longer term outcomes (McLaughlin & Jordan, 1999).

While the terms employed to describe the logic model framework are varied (see Teather & Montague, 1997; Patton, 1997; Montague, 1997;) the basic intent of this approach is to clearly identify stakeholder perceptions of how a program will work. The process of constructing a logic model entails the following five steps: (1) collecting the relevant information; (2) clearly defining the problem and its context; (3) defining the elements of the logic model; (4) drawing the logic model; and, (5) verifying the logic model with stakeholders. Each of these important steps seeks to answer the critical question: "What are we trying to achieve with our professional development system and why is it important?"

The Professional Development Leadership Academy has identified seven major categories of information that are tracked within the project accountability design. These include:

--(a) resources/inputs or what the Academy intends to do with its resources;
--(b) activities includes those steps that are required to achieve the project outputs;
--(c) customers reached which describes the clients or consumers of the Academy activities;
--(d) outputs or the short term outcomes of the project process;
--(e) intermediate outcomes which identify how services and systems change as a result of the short term outcomes;
--(f) long term outcome or the Academy vision of changes for children; and,
--(g) external forces describing those contextual factors, not under the control of the Academy project, that could influence its success either positively or negatively. A description of how these elements are interrelated is found in Figure One which provides the proposed logic for the Professional Development Leadership Academy.

The connections that have been established among two week-long training sessions on the Academy curriculum for cohort team members who will develop new knowledge, attitudes, and skills, result in inter-related and accountable systems of professional development. The enhanced systems lead to the preparation and support of fully qualified and quality educators that provide enhanced school opportunities for success and lead to the Academy vision of greater results for all children. The identification of key external forces throughout the implementation process defines an effective logic model of planned change in professional development.

Considerations in Balanced Accountability

The National Association of State Directors of Special Education (1997) identified a dynamic model of accountability that considered the need to balance the concerns for input/process accountability, student learning outcome accountability, and system standards accountability. The Academy has based its evaluation framework on these components that lead to a vision of balanced accountability, represent an educational system, and ensure that all children, including those with disabilities, benefit from their educational experience. Benefits are measured through determinations of equal access, high standards, and high expectations resulting in caring, productive, and socially involved citizens.

The historical roots of the balanced accountability model are drawn from the Institute of Cultural Affairs of Chicago (1970) which views social process in terms of three fundamental components including economical/foundational aspects, political/organizational aspects, and cultural/meaning giving aspects. Ideally, each of the three components is robust and provides a unique contribution to the balance of an inter-related system. Frequently a relative imbalance will occur which allows one of these aspects to function as a tyrant undermining the balance of the other two. In the remaining two aspects of the model, one factor assumes an ally position in support of the tyrant and the other has the potential to collapse from neglect. For example, many Native American Nations have adopted organized gambling to address the economic/foundational aspect of their identity. The ally in this equation frequently becomes the governmental rules and regulations in support of the gaming industry from a political/organizational perspective. The potential for collapse is felt by the cultural/meaning giving aspect of the tribal government that provides the official sanction to these activities. When the economic tyrant pairs with a political ally, the culture and language of the tribe is lost as a result.

Another example of the delicate balance that is easily lost in questions of social balance is provided by the religious sect known as the Shakers. Shakers have adopted a set of cultural/meaning giving imperatives that forbid procreation among its members. When the cultural tyrant is paired with the political ally, the economical foundation of the society collapses since the culture is unable to sustain itself over time.

The Academy asks state professional development systems to focus on the ideal balance of educational equity, individual student achievement for all learners, and program effectiveness at the system level. The mandates of the Individuals with Disabilities Education Act (Public Law 105-17) have resulted in an over-reliance on input/process accountability, with varying degrees of collapse in the success with individual student learning outcomes and system level outcomes of educational success.

Quality Performance and Results Measures

Balanced systems of accountability emphasize inputs and process in equal measure with the more difficult accountability concepts of individual learning outcomes and systems standards outcomes. One of the stumbling blocks to achieving this desirable balance is the lack of common language with which to describe a desired level of outcome in terms that are consistent and contribute to general understanding among the customers and providers of professional development. Friedman (1999) identified four essential questions of accountability that provide guidance in the area as follows: (1) What do we want for our children and families? (this identifies the desired **results**); (2) How do we know if we have achieved the results we want? (this suggests the types of **indicators** of effectiveness we are willing to accept); (3) What works to achieve the outcomes we want? (this delineates the **strategies** that lead to the desired indicators and results); and, (4) How do we know the elements of our strategy are performing as well as possible? (these provide a description of the qualitative change outcomes that become our **performance measures**).

The difference between results and performance measures is significant. Results measures are much broader in scope, and speak to the broad range of factors that are producing the results, indicators, and strategies that lead to the current situation in professional development. From a logic model perspective (McLauglin & Jordan, 1999), results measures are the result of a variety of factors. Many of the causal factors are beyond the scope of project influence and accountability. Performance measures, by contrast, provide measures of program effectiveness for which the professional development system architects are the principal owners. Performance accountability focuses primarily on the relationship between strategies and performance measures in professional development. In essence, the specification of performance measures answers the question: “What change did we produce, and how well did we do it?” The types of information that provide evidence of effectiveness would include cost/benefit analyses, computation of return on investment, and customer results/outcomes. Friedman (1999) stresses the critical need to establish baseline information regarding quality performance measures. To establish the compelling case for change, it is essential to think about the story behind the baseline and what can be done to improve upon existing performance.

Summary

The accountability link between professional development and increased results for all learners requires the use of new tools that have the potential to support viable systems of accountability. The Professional Development Leadership Academy has identified four complementary tools that have the potential to bridge the gulf between professional development and learner result. These tools include: the specification and delivery of a professional development curriculum for stakeholders entrusted with the future success of state systems of professional development; the development and implementation of logic models of planned change that links resources, activities, and customers with short, intermediate, and longer term outcomes; the implementation of balanced systems of accountability that insure sufficient attention to educational equity, student achievement, and system outcomes; and the specification of quality performance and results measures, including the context for applying each to educational accountability questions. These promising tools become little more than academic exercises without the commitment of strong and visionary leadership with the willingness to incorporate these elements into the fabric of a state system of accountability for professional development.

A state system of professional development addresses the needs of all stakeholders ranging from the most populated and urban environments to the most isolated and rural communities. Professional development systems must pay attention to all elements of the system which encompasses the pre-service preparation of aspiring educators at the higher education levels of impact to the continuing education concerns of the most experienced and skillful practitioners in the field. Special education and general education concerns must be blended into a single system that includes the interests of all learners, including the most difficult to serve.

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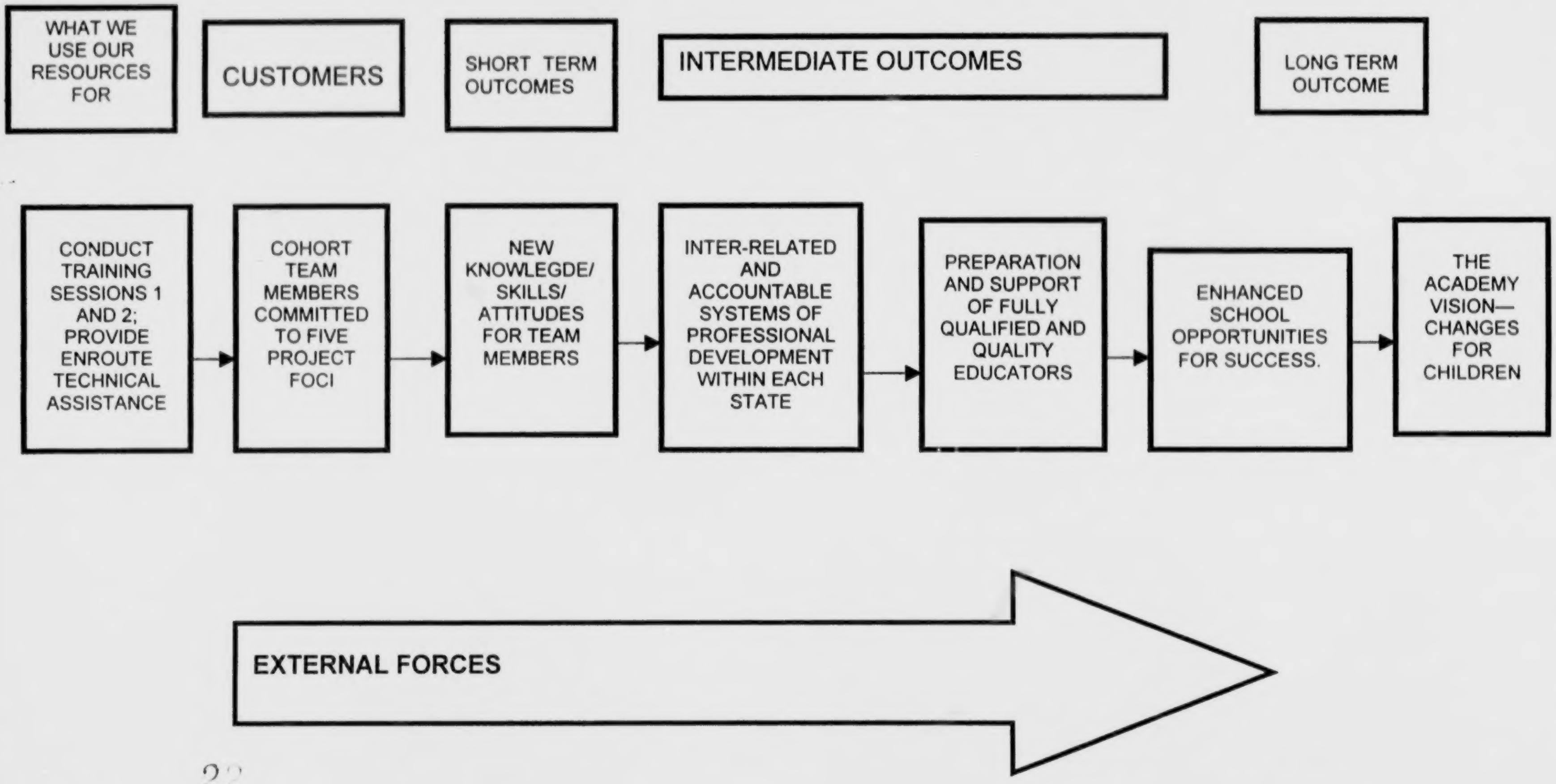
Figure One: PROPOSED LOGIC
PROFESSIONAL DEVELOPMENT LEADERSHIP ACADEMY



WHAT WE USE OUR RESOURCES FOR

CUSTOMERS

SHORT TERM OUTCOMES

INTERMEDIATE OUTCOMES

LONG TERM OUTCOME

CONDUCT TRAINING SESSIONS 1 AND 2; PROVIDE ENROUTE TECHNICAL ASSISTANCE

COHORT TEAM MEMBERS COMMITTED TO FIVE PROJECT FOCI

NEW KNOWLEGDE/ SKILLS/ ATTITUDES FOR TEAM MEMBERS

INTER-RELATED AND ACCOUNTABLE SYSTEMS OF PROFESSIONAL DEVELOPMENT WITHIN EACH STATE

PREPARATION AND SUPPORT OF FULLY QUALIFIED AND QUALITY EDUCATORS

ENHANCED SCHOOL OPPORTUNITIES FOR SUCCESS.

THE ACADEMY VISION—CHANGES FOR CHILDREN

EXTERNAL FORCES

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THE STATE ADVISORY PANEL FUNCTION: LEADERSHIP ISSUES IN RURAL SPECIAL EDUCATION

Leadership personnel in rural school districts may well not have the same experiences in special education as do leaders in more urban settings. Therefore, their perceptions about special education issues may not be consistent with those identified on a more regional or national basis. Because of participant response to an ACRES 99 conference presentation indicating that insufficient time was provided to discuss special education issues/concerns generated in a series of public hearings, that information base has been updated and is provided in the following narrative.

In order to generate the information provided in this presentation, the state advisory panel in West Virginia was once again approached with a suggestion that public hearing sessions associated with each of their eight meetings be held. This would provide a forum within which parents, teachers, administrators and the public could express their views of issues and/or concerns of an ongoing or emerging nature. The advisory panel, named the West Virginia Advisory Council for the Education of Exceptional Children, agreed to support this process and its members felt that this would provide an information base upon which to develop its Annual Report.

Because there is considerable variety in the ways in which individual states meet the mandate for structuring advisory panels, some background information is necessary. The Individuals with Disabilities Education Act (IDEA) requires each state to have an Advisory Panel. The composition of the West Virginia Advisory Council for the Education of Exceptional Children (WVACEEC) is described in State Code 18-20-6. The Council is charged in part with advising policy makers regarding the unmet needs of exceptional children. The Council has adopted a leadership mission which includes influencing the State Board of Education, other public policy makers (such as the Legislature) and West Virginia's citizens in ways that continuously improve educational outcomes for children with exceptionalities. The Council is composed of sixteen members appointed to three-year terms by the State Superintendent of Schools. In addition, the Council composition is geographically representative of the state. Because the state is separated into eight areas called Regional Educational Service Agencies (RESA's), the Council conducts one of its two-day meetings in each region annually. For purposes of collecting information on current or ongoing trends and issues, the Council has scheduled public hearings on both days of these meetings. In addition to the public hearings, typical agendas include topical presentations from local, regional and state education personnel as well ones from other agencies involved in the provision on services to exceptional children. A listing of participants for the most recent two years is presented in Appendices A & B.

Having gathered an amazing level of testimony each year, the Council was asked to again reach consensus on the identification of long-standing concerns and then to apply the same process to determine emerging issues worthy of separate recommendations. Each of these two tasks will be explored separately in the following sections.

LONG-STANDING CONCERNS

It is important to note that many of the concerns identified below are ones addressed in the past by Annual Report recommendation(s) in more than one year. It is also important to note that, in many cases, significant progress has been made by local, regional and state education leaders in addressing these concerns. In fact, the very fact that they tend to be perennial issues is an indication of their appropriateness for this category. Finally, it is important to recognize that the following is simply a listing and is not arranged in any hierarchical order:

- School-to-work transition training remains a challenge for counties having a limited employment base.
- The logistics of managing the time necessary for special education-related meetings and for developing accompanying documentation without loss of instructional time remains a challenge in most school systems.
- Due to the difficulty in obtaining occupational therapy, physical therapy and speech pathology services, follow-up on pre-school referrals for communication disorders and other related services remains a problem in some counties..
- Access to assistive technology by students with disabilities is still a challenge in some areas of the state.
- Calculation of equitable teaching caseloads in a fashion which allows quality instruction and related services to be delivered is still a statewide issue.
- The staff development and training needed to effectively serve students with low-incidence exceptionalities is increasingly needed for all educators as more inclusive services are provided to these students.
- The challenging behaviors of some students continue to highlight the need for extensive training on behavior management techniques for all students.
- A number of school systems are still experiencing a fiscal deficit. In addition, beyond a certain percentage, identification of additional exceptional students creates a penalty situation for some counties.
- The school calendar still does not provide adequate time, flexibility and opportunity to support a comprehensive system of personnel development.

RECOMMENDATIONS

The content of this section was based upon emerging issues identified as a result of testimony requested by the Advisory Council or otherwise received from the public during hearing sessions scheduled at each meeting during the last two years. The intent of the recommendations was to capture key emerging issues in the form of a specific recommendation in a fashion that maximized the potential of existing resources to improve services. Emerging issues were collapsed into discreet categories and resulted in the following:

- ***IEP Process*** - The Council recommends that the State Board of Education examine SBE Policies 2510, 2444.1 and 2444.2 in order to clarify the relationship between exceptional student components of each and revised graduation requirements, type of diploma awarded and the issuance of warranties.
- ***Monitoring.Oversight*** - The Council recommends that, because of the state and federal requirements for all children to participate in state-wide assessment, the WV Department of Education monitor potential increases in Special Education referrals because of low student performance.
- ***Technology*** - The Council recommends that the State Board of Education assure that students with disabilities receive the same level of access to educational technology afforded other students.

- ***Preschool/Early Childhood*** - The Council recommends that the State Board of Education, Legislature and other state agencies provide the fiscal support necessary to aggressively expand programs for children at this critical developmental stage.

- ***Local Administration*** - The Council recommends that the State Board of Education monitor an increasing trend towards reduction of support for local administrators of Special Education due to the reduction/reassignment of central office personnel.

- ***Parent Training*** - The Council recommends that the State Board of Education ensure the development of a parent training process for use in counties not opting to support Parent/Education Resource Centers.

- ***Statewide Assessment Program*** - Because significant differences exist among counties in the participation of exceptional students in the state-wide assessment program, the Council recommends that the State Board of Education make every effort to ensure that the numbers and percentages of exceptional students participating under standard conditions be increased.

- ***Discipline*** - The Council recommends that the State Board of Education provide the leadership necessary to provide immediate and extensive training for parents, teachers and school administrators in developing functional behavioral analyses and behavior management plans to prevent and/or manage the challenging behaviors of all students.

- ***Interagency Agreements*** - The Council recommends that the State Board of Education encourage the development of inter-agency agreements in order to assure a quality continuum of transitional services spanning early intervention, preschool, school years and post-secondary programs.

- ***Strategic Planning*** - The Council recommends that the new West Virginia State Improvement Plan required by IDEA '97 receive the full support of the State Board of Education in order to improve services for students with disabilities over the next three to five years.

APPENDIX A
INDIVIDUAL PARTICIPANTS
1997-1998

The following people attended meetings across the state in the past year. Most of them provided information or expressed concerns as part of the informal meeting with the public or because they had been included on the meeting agenda.

Name		RepresentingCounty
Jodie Adams	Teacher	Ritchie
Phil Akers	Southern Mountains Head Start	McDowell
Rita Alkire	Parent	Lewis
Natala Auvil	Lewis County Schools	Lewis
Susan Barnes	RESA I, Director Sp.Ed.	Raleigh
Jackie Blankenship	Speech Pathologist	Lincoln
Margaret Bovee	Special Education Teacher	Greenbrier
Tila Boyce	Hodgesville Elementary	Upshur
Barbara Brazeau	WVDE	Kanawha
G. Ronald Brown	Director of Special Education	Berkeley
Nancy Buckland	Parent/Educator Resource Ctr.	McDowell
Nora Burkhammer	Lewis County High School	Lewis
Linda Campbell	Teacher	Ritchie
Susan Carpenter	WVPTI/Parent Advisory Council	Nicholas
Jacqueline Carrington	Specialist, Board of Education	McDowell
Billy Christian	Ranger Elementary	Lincoln
Leta Grace Cline	Sp.Ed. Evaluator, BOE	McDowell
Pam Copeland	Parent/Educator Resource Ctr.	Ritchie
Debbie Cortellesi	Sp.Ed. Evaluator, BOE	McDowell
Willa Dambro	Parent/Educator Resource Ctr	Berkeley
Helen Derico	Lewis County Schools	Lewis
Paul Derico	Principal, Peterson School	Lewis
Gabe Devono	LewisCounty Schools	Lewis
Thelma Dietrich	Parent	Lewis
Norma Harper	DoaneSp.Ed.Coordinator, RESA V	Wood
David Dotson	Hamlin High School	Lincoln
Brenda Ellyson	Lewis County High School	Lewis
Charles Fritsch	Assistant Superintendent	Berkeley
Sharon Hardway	Teacher	Ritchie
Annetta Hatfield	Board of Education, Special Ed.	Lincoln
Bill & Nancy Harmison	Parents	Berkeley
Constance Harvey	Parent	Kanawha
Clinton Henry	Coordinator, Sp.Ed.	McDowell
Pamela Hotsinpiller	Parent/Educator Resource Ctr	Harrison
Carol Hsu	Parent	Morgan
Thomas Iles	Special Education Director	Greenbrier
Glenna Jennings	Parent	Wyoming
Sharon Jerden	Lewis County High School	Lewis
Elizabeth Johnson	Special Education Specialist	Greenbrier
Joan Jost	Special Education Teacher	Greenbrier
Hilda Kerns	Harrison County Schools	Harrison
Debbie King	Parent/Educator Resource Ctr.	McDowell

Denton King	Lewis County Schools	Lewis
Lucinda Lambert	Southwestern Community Action	Lincoln
Mary Lambert	Southern Mountains Head Start	McDowell
Susan Lattimer	Coordinator, WVDOE	Kanawha
Bill Linville	Board of Education	Lincoln
Maxwell Linville	Grandparent	Lincoln
Mary Dawn Lockhart	Southern Mountains Head Start	McDowell
Mary Lough	Parent/Educator Resource Ctr.	Lewis
Patricia Lucas	Behavior Disorder Teacher	Berkeley
Debbie Lusk	Sp.Ed. Teacher	Wyoming
Sharon Maggio	Parent	Morgan
Donna Martin	Board of Education	Lincoln
Charles McCann	County Commission	Lincoln
G.E. McClung	Superintendent of Schools	Ritchie
Teresa McDonough	Parent	Kanawha
Marie McGannon	Lewis County Schools	Lewis
Warren McGraw	Prosecuting Attorney	Wyoming
Doris McIntyre	Parent	Harrison
Sylvia McNeish	Principal, Lewis County High	Lewis
Kelly Merritt	Ranger Elementary	Lincoln
Norma Mertz	Lewis County High School	Lewis
Ardyce Morgan	Lewis County Schools	Lewis
Beverly Mullins	Parent Resource Center	Kanawha
Linda Nelson	Sr. Speech-Language Pathologist	Greenbrier
Marilyn Nichols	Parent Resource Center	Kanawha
Jewell Parsons	Parent Consultant/WVPTI	Fayette
Dale Penwell	RESA VIII Sp.Ed. Coordinator	Berkeley
Leann Piercy-McMillion	Special Educ. Teacher	Greenbrier
Roscoe Plumley	President, Board of Education	Raleigh
Julia Pothoof	Grandparent	Berkeley
Jo Ann Powell	Parent	Pleasants
Jackie Purkey	Educator	Wood
Cheryl Rahming	Lewis County High School	Lewis
J.J. Rakes	Hamlin High School	Lincoln
Mary Ann Shires	Seneca	Greenbrier
Robert T. Simpson	Lewis County High School	Lewis
Rick Simon	Tri-County Health Clinic	Upshur
Jim Smiley	RESA VII	Marion
Marlene Smith	Lewis County High School	Lewis
LaDonna Smith	Southwestern Community Action	Lincoln
Ron & Roberta Smith	Parents	Harrison
Darlene Smithson	Lewis County High School	Lewis
Barbara Spaur	Lewis County High School	Lewis
Sayrann Stalnaker	Lewis County High School	Lewis
Carolyn Stover	Parent	Wood
Karolyn Stump	Administrator, Sp.Ed.	Wyoming
Terri Stutler	Parent/Adv Council	Harrison
Pricilla Suan	Lewis County High School	Lewis
David Sutherland	Citizen	Hampshire
Carol Tamara	Parent/Educator Resource Ctr.	Berkeley
Susie Thayer	Parent	Lewis

Kathryn Walker	RESA IV	Nicholas
Ellen Wallace	Board of Education	McDowell
Veronica Washington	West Virginia Advocates	Kanawha
Melody Waybright	Parent/Educator Resource Ctr.	Harrison
David B. Weekley	Sp.Ed. Director	Ritchie
Becky Wilson	Member, Board of Education	Jefferson
Richard Yednak	Sp.Ed. Teacher	Harrison

APPENDIX B
INDIVIDUAL PARTICIPANTS
1998-1999

The following people attended meetings across the state this year. Most of them addressed their concerns during the informal meeting with the public or were included in the meeting agenda.

Name	Representing	County
Melinda Anderson	Parent	Wetzel
Douglas Auten	WV Rehabilitation Services	Brooke
William Ball	Special Education Director	Monroe
Margaret Beltz	The Intelligence/Wheeling News Register	Ohio
Sherry Bostic	Parent	Nicholas
Mary Calissie	Wheeling News-Register	Ohio
Kathy Chitester	Parent Education Resource Center	Barbour
Frances Clark	Office of Special Education, WVDE	Kanawha
Luanne Cochran	Teacher	Nicholas
Ron Cyrus	RESA III	Kanawha
Theresa Deaver	Teacher	Mercer
Tim Derico	Teacher	Wirt
Aime Dooley	Teacher	Nicholas
Mark Douglas	Parent	Nicholas
Mary Pat Farrell	Office of Special Education, WVDOE	Kanawha
Sam Gattlieb	Parent	Kanawha
M. Andrew Garber	Special Education Director	Ohio
Billy Goode	Student	Jefferson
William Grizzell	Superintendent	Nicholas
Lyn Guy	Superintendent	Monroe
Kathy Hudnall	Special Education Director	Kanawha
Ginger Huffman	Office of Special Education, WVDOE	Kanawha
Karen Huffman	Assistant Superintendent	Wirt
Amanda Hughes	Glenville State College	Gilmer
Jim Hunter, Sr.	Parent	Monroe
Lynn Hutchison	Family Resource Center	Summers
Eva Ice	Parent	Wetzel
Giles Jones	Principal	Monroe
Glen Karlen	Superintendent	Randolph
Carolyn King	Grandparent	Wirt
Pam Kohner	Special Education Coordinator	Wirt
David Kurtz	Board of Education Member	Wood
Ruth Lilly	Special Education Coordinator	Randolph
Deede Lundeen	Special Education Director	Monongalia
Denny Martin	Student	Wirt
Angela McCue	Parent	Wirt
Johanna McInturff	Office of Special Education, WVDE	Kanawha
Sandra McQuain	Office of Special Education, WVDE	Kanawha
Michael Moran	Parent	Monroe
Rachael Moran	Parent	Monroe
Mary Beth Mustain	Head Start	Monroe

Marilyn W. Nicholas	Parent Resource Center	Kanawha
Megan Mustain	Child Representative	Monroe
Deborah Novotny	Special Education Director	Wetzel
Mary Nunn	Office of Special Education, WVDE	Kanawha
Jim Parker	Office of Special Education, WVDE	Kanawha
Janice Perkins	Teacher	Nicholas
Dabney Phillips	Teacher	Nicholas
David Phillips	RESA VI	Ohio
Rita Pitzer	Parent	Monroe
Elmer Pritt	Executive Director RESA IV	Nicholas
Melissa Reed	WV Div. Rehabilitation Services	Hancock
Alfred Renzella	Special Education Director	Marshall
Susan Renzella	Transition Coordinator	Marshall
Debra Sanderson	Parent	Monroe
Kathi Schmalz	Transition Coordinator	Wetzel
Kathryn Sibbett	Special Education Director	Nicholas
Johna Simmons	Speech Therapist	Greenbrier
Michael Smith	Student	Jefferson
Jack Stewart	WV Assistive Technology System	Monongalia
Joseph Super	Special Education Director	Randolph
Hazel Toler	Peterstown Elementary	Monroe
Brenda Turner	Teacher	Monroe
Glen Tyree	Principal, Summersville Elementary	Nicholas
Darwin Vaught	Resource Specialist	Kanawha
Louise Villers	Special Education Administrator	Wirt
Kathryn Walker	Special Education Coordinator	Nicholas
Andrea Williams	Teacher	Nicholas
Donald Williams	Grandparent	Wetzel
Penny Williams	Grandparent	Wetzel
Thelma Workman	Southern Mountain Head Start	McDowell

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USING A MODEL OF CONTINUOUS PROGRAM IMPROVEMENT TO SUPPORT IMPROVEMENT OF SERVICES TO STUDENTS WITH DISABILITIES AND INCREASE STUDENT PERFORMANCE

Demographics

. Carroll County Public School system is located in central Maryland approximately thirty miles north of Baltimore and sixty miles northwest of Washington, D.C. Carroll County is a growing county consisting of residential and farmland with little industry.

Carroll County Public Schools has an enrollment of approximately 27,500 students and thirty-seven schools. Additionally, another middle school will open in the year 2000-2001 and two new high schools within the next three years. Of the total student population approximately 14 percent, or 3,821 students are identified as students with a disability. Of the 3,821 students with a disability 97.5 percent attend a comprehensive elementary, middle or high school.

Evidence that Supported a Need for Change

With the Reauthorization of the Individuals with Disabilities Education Act the basic service delivery and staff opportunities were impacted. Since special education was clearly defined as, "specialized instruction to meet the unique needs of the student at no cost to the parent . . ." it was now time to examine what we were doing, why we were doing it, and how well we were performing. The State of Maryland was also in the process of examining how they would monitor and evaluate state wide special education programs.

In Carroll County we had also identified some particular areas of focus;

- A rising number of students being identified as disabled,
- A rise in costs associated with increased student needs,
- An inordinate number of minority students being identified,
- More than two times the number of males identified compared to females,
- The drop out rate for students with disabilities that was unacceptable, and
- The need to meet Federal and State compliance standards.

The Process

Change is a "constant" within a growing and improving organization. Therefore, we had to look at how we were providing service to students and staff to determine how effective and how efficient the service delivery system was. We also needed to examine the areas of compliance to determine staff training needs.

The Carroll County Public School plan was built upon two solid foundations. The first is the school system vision, "Every action and decision of the Carroll County Public School community is devoted to that point where the student meets the teacher." The second building block is that the office of special education believes that "All children deserve specialized instruction."

The process for Carroll County Public Schools Special Education Plan for Monitoring for Continuous Improvement and Program Results was divided into four specific phases to make the process manageable and ongoing. Phase I included the "compliance review." During this phase staff-reviewed students Individual Education Plan (IEP) folders to determine how each folder met the standards established by the Maryland State Department of Education and IDEA. The local staff review was complemented by a Maryland State Department of Education team review and validation of the local school system results. The second phase of the process dealt with "program results." This phase examined available data in the following areas; student identification by age, gender, ethnicity and disability, Least Restrictive Environment data, discipline data, program exit data, student performance on the Maryland State Performance Assessment Program and the Maryland Functional Assessment.

During Phase III the special education office examined program satisfaction data. The data was collected from random surveys that were mailed to parents of nondisabled students, parents of students with disabilities, general education teachers, special education teachers, related service personnel, building level administrators, central office administrators, and community agencies/businesses. The surveys were jointly developed by staff and parents and were distributed and collected through the U.S. mail totally anonymous. Once the surveys were returned, the results were tabulated to provide direction for program improvement and a higher level of program satisfaction among all stakeholders.

Phase IV provided the local school system the opportunity to develop an action plan for continuous improvement in the area of special education. During this phase staff and team members examined and compiled a listing of strengths and needs for program improvement. A plan was developed following the Plan Do Study Act (PDSA) process to implement changes. The PDSA process provided the local school system a tool and process for continual study and evaluation of the implemented changes. As each of the changes was studied (evaluated/reviewed) action was taken to continue or revise for further program improvement.

Impact

The established process has provided Carroll County Public Schools a tool for the ongoing review or service delivery, compliance, student performance, and program satisfaction. Full results of the process will be readily available at the conclusion of the second year of implementation. During year one much of the data collected was baseline data and improvement can be determined after the second round of data is collected.

Compliance issues can be systematically addressed for individual schools as well as the entire school system. With this approach we are better able to schedule staff training based upon individual school/community needs and thus eliminate the old "shot gun" approach.

Future Direction

Whereas a process has been established for continuous improvement, the future looks bright for special education service delivery in Carroll County Public Schools. Based upon a plan for continuous improvement and the need to place resources at the point of need – where the student meets the teacher – the local school system will be able to deliver services that improve student performance, meet stakeholder expectations, and maintain a level of compliance that meets established state and federal standards.

At Risk

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A CLASSWIDE PEER-ASSISTED SELF-MANAGEMENT PROGRAM ALL TEACHERS CAN USE: ADAPTATIONS AND IMPLICATIONS FOR RURAL EDUCATORS

Across the country there is little disagreement that the violent and disruptive behavior of youth, whether at home, in schools, shown in the media, or on our streets is a matter of national concern. Since young people spend approximately one-half their waking hours at school, schools are the sites of much of this violent and disruptive behavior. According to a National Education Association survey (Sautter, 1995), on any given day as many as 160,000 students stayed home for fear of such behavior at or on the way to school. Nationwide, 24% of all students in Grades 3 through 12 reported having been assaulted by another student (Lowry, Sleet, Duncan, Powell, & Kolbe, 1995). In addition to extreme acts of violence, schools and classrooms were frequently disturbed by less severe forms of disruptive behavior such as off-task, defiance, noncompliance, harassment, and intimidation (Nelson, 1996). Given these statistics, it is not surprising that the annual Gallup poll of the public's attitudes toward the public schools consistently identifies lack of discipline as the most serious problem facing schools (Rose & Gallup, 1999). Not only do many teachers feel unprepared to deal with disruptive behavior, they also believe that this behavior substantially interferes with their teaching and their ability to successfully include students with disabilities (Schumm & Vaughn, 1995). General educators' reluctance to include students with disabilities is perhaps most clearly evident with regard to the inclusion of students with or at risk for emotional and behavioral disorders into general education settings. For example, only 17% of students with learning disabilities compared with 34% of students with emotional disturbance were served in a separate class during the 1995-96 school year (U.S. Department of Education, 1998). Cotton (1990) estimated that only half of all classroom time was used for instruction, and most of the other half was taken up by disciplinary problems. The implications for all students and particularly the successful inclusion of students with disabilities should not be underestimated.

In West Virginia and rural parts of Maryland, this problem is exacerbated by personnel needs typical in rural states. Rural school systems have experienced the most severe and consistent difficulties in obtaining an adequate supply of new special educators to work in local schools (Helge, 1992). All too often, rural students with special needs may be unserved (with little or no access to a trained special educator) or underserved (experiencing a succession of untrained teachers and aides) (Ludlow, 1998). In addition to this, West Virginia schools have an aging population of teachers. In public hearings held in West Virginia on school violence, speakers consistently addressed the need to do more to train teachers to recognize troubled youth early, to be proactive in classroom and school-wide discipline, and to be trained in crisis management (U.S. Congress, 1998). Preliminary analysis of data from a survey of 70 rural educators from West Virginia and Maryland (Mitchem, 2000) confirms these findings. These teachers reported that the greatest challenge facing them in the classroom today is classroom management followed closely by adapting curriculum to meet student needs.

Teachers' lack of preparation and reluctance to include students with disabilities are not the only issues impacting services to students with disabilities. Developing effective new practices impacts few children if these practices are not adopted and sustained by practitioners in the field. The fact that sustained use of research-proven practices after the research study ends rarely occurs (Fuchs & Fuchs, 1996) is an issue that has concerned the field for decades (Lamke, 1955). This issue is arguably most noticeable in the area of classroom management--still one of the top rated concerns of educators and administrators everywhere (Mitchem, 2000). In order to bridge this research to practice gap, educators need training in practical, effective programs, which require minimal time, effort, and resources, and which can be adapted to meet the unique needs of the settings in which they work (Kauffman, 1996). Results from a survey of over 400 teachers working in both urban and rural settings indicated that the two factors which most influenced teachers' decisions to use research-based strategies were feasibility (defined as a teacher's ability to implement it given their current resources) and the availability of simple, clear, step by step instructions (Mitchem, 2000). Using these factors as a guide, we developed a program which teaches social and self-management skills using components of two research-proven programs, Class-Wide Peer Tutoring (Greenwood et al., 1997) and self-management (Young et al, 1991).

This paper shares the results of a collaborative project between a researcher and practitioner. First we address self-management's potential as an inclusive strategy. We describe the class-wide peer assisted self-management program (CWPASM) and the steps required to implement it. Then we summarize some quantitative data on the effects of CWPASM on appropriate classroom behavior of middle school students in an inner city school. We report some preliminary data on the implementation of CWPASM in a rural setting, its acceptability to students and feasibility for the teacher, as well as adaptations we made for this setting. Finally, we discuss the implications of these findings for practitioners and researchers.

Self-management programs typically involve some combination of two or more of the following strategies: self-monitoring, self-evaluation, and positive reinforcement. A successful program combines the strategies to teach students responsibility for their own social behavior and academic performance (Young, West, Smith, & Morgan, 1991). Researchers have documented the effectiveness of self-management at teaching students to regulate their own behavior, decrease reliance on adults, as well as promoting students' use of skills learned to non-training settings (McDougall, 1998). Teaching students to manage their own academic and social behavior may allow teachers to intervene with students demonstrating problem behaviors or academic difficulties and teach all students skills that promote responsible behavior. Self-management can help keep students on-task, reduce behavior problems, and teach students to be responsible for their own actions; as such, it represents an attractive strategy for general educators to use in inclusive classrooms.

CWPASM is a peer-assisted self-management program based on two existing research-proven interventions: total class involvement in teams of peer partners from Class-wide Peer Tutoring (Greenwood et al., 1997) and self-appraisal and self-monitoring from Young and colleagues' (1991) self-management program. It was designed to help students learn to follow classroom rules, use appropriate social skills, and work-productively within a teacher-managed, peer-assisted reinforcement system, gradually shifting responsibility from the teacher and peer-partner to the student. CWPASM involves instruction by the teacher in self-management, social skills, and self-monitoring activities and a reinforcement system to increase the frequency with which the behaviors were performed. Although designed and initially field-tested with 7th graders, the program has since been used successfully with 4th-8th graders. Teaching students to self-manage and play CWPASM takes approximately 90 minutes. Lesson 1 teaches students the definition, rationale, and benefits of self-management, the Antecedent, Behavior, and Consequences of self-management, and the classroom rules. Lesson 2 reviews the classroom rules and teaches students how to evaluate their behavior, mark and match with their partner, and report points. Table 1 describes the steps used to teach the procedures (Mitchem Young, West, & Benyo, in press).

The effects of CWPASM were evaluated using a multiple baseline design across three classes of 7th grade inner-city language arts students. Significant improvements in on-task behavior, instruction-following, and academic related skills were noted in the class as a whole and in 10 at-risk target students (Mitchem et al., in press). In addition, students rated the program as likeable, acceptable, and effective at improving their behavior and the classroom climate. The teacher (second author) who implemented the procedures also reported high satisfaction ratings with the goals, procedures, and outcomes, evidenced by her continued use of the procedures three years later with 6th and 8th grade students in a rural school. Although we are only part way through our field test of CWPASM in a rural school, we have collected some anecdotal data supporting the program's acceptability and effectiveness in this particular setting.

Table 1: Procedures for Teaching CWPASM

	Step	Description
1.	Define Self-mgmt	Teach students definition and rationale for self-management; elicit examples of benefits of self-management.
2.	Define ABCs	Provide students definition of ABCs. Students label and provide e.g.s of ABCs.
3.	Review Class Rules	Students review and role-play non-e.g.s and e.g.s of following class rules. Steps of selected target behaviors taught through modeling, practice, and role-play.
4.	Rating System	Students learn rating system describing various levels of target behaviors, and points associated with each level.
5.	Evaluate Behavior	Students learn to compare behavior and partner's with rating system, to prompt appropriate behavior, and to play the game.
6.	Post Rules	Class rules, rating system, and descriptions of rating levels posted.
7.	Assign Partners/ Teams	Students paired with a partner, each partnership assigned a number, and each pair randomly assigned to one of two teams weekly.
8.	Mark & Match Cards	At cue students compare perceptions of their behavior with levels described and record rating for self & partner corresponding to performance. Partners compare rating of each other and complete own card. Points earned for partner's rating and bonus for "perfect" matches.
9.	Report Points	Peer partners total points earned by both and announce total to designated point recorders who summarize team and partnership performance.
10.	Identify Winner	Team with highest point average recognized as winner.
11.	Mystery Match	To encourage accurate ratings, teacher mystery matches with two secretly selected peer partnerships and awards bonus for accurate ratings.

After only a few days of implementing CWPASM with 6th grade music classes, we found that reports of the program's effectiveness and positive nature had spread through the school and community resulting in a number of visitors to the classroom. The teacher wrote in her journal:

> "The special ed. teachers have come to my classroom when a teacher assistant saw how I was setting up my class. They wanted to know how I learned what I am doing and would I help them. They also think the 6th grade teachers should have some training".

The second author was also invited to present on this program and its underlying principles at the classroom management class for new teachers in the district—a class she, as a new teacher, was supposed to take.

To document feasibility of the procedures, we collected data on the time to train the teacher and students in the procedures, the time the procedures required each class period, costs of reinforcers and additional materials, and accuracy with which teacher and students were able and willing to implement all steps. These data are reported in detail elsewhere (Mitchem & Young, under review). Here we report briefly time and material requirements. Once we had taught students the marking, matching, and point reporting procedures (90 minutes), playing the CWPASM game required only 2-3 minutes to report points at the end of class. The teacher copied and laminated one point card for each student. While this represented a substantial time investment initially, she is still using those same cards with different students one semester later.

Originally, we had planned on allowing the team that earned the most points each week to select a reinforcer for the entire class (e.g. reading period outside, 15 minutes game/free time, an opportunity to make up work or do extra credit work). However, when we implemented CWPASM in the inner-city school, we found that students could not agree on a reinforcer and decided that they were more interested in which team won.

CWPASM has now also been used with seven 6th grade and seven 8th grade classes in a rural school. Here students noted explicitly that they did not need or want to "get anything' for their points. They were more interested in learning which team had earned most points and whether they (and their partner) had improved.

One difference we have noted is typical of rural schools. All students were bussed in, some from 15-18 miles away. This has meant that the teacher has had to adapt some consequences to fit with the bus schedule. Working with students one-on-one after school was not possible because of the transportation issue. Also many of her students had chores to complete after school in addition to homework, so in some cases although parents were supportive of students taking responsibility for their actions, they noted that their child had other responsibilities, too. Other differences in our use of CWPASM in the rural setting occurred in part because of the structure of the classes. The teacher quickly recognized that students are ability–grouped. She noted in her journal:

> "What I have noticed is the lack of social skills in some of the students. Especially in the special ed. students whom I have just learned are mainstreamed without an explanation. It seems that once they come up from the elementary they are put into regular ed. without many resources other than a smaller class size. This is a big difference for me. I teach 7 classes daily. My 5 larger classes are my on-grade level or advanced students. The two smaller classes (15 and 18 students) are my lower skilled students".

The difference that ability-grouping can make became evident the first day she introduced the class to her students. The teacher wrote:

> "Most of them caught on right away. Or at least my on grade or above level classes have. It will be interesting to see how they do with the game and if it carries over into other classes and at home. But I would have to say the response from the students is good so far. It took more time to explain the game to my second class. This just so happens to be the class that I found out on the first day they would be a challenge. I'm not too convinced they actually have the idea"

A few days later, she comments:

> "The students seem to be happy with the actual game so far. I am going to do a hand survey tomorrow to see if they are finding it acceptable or not. My challenging ones may not still really understand what it is I am asking. When there were students who could help me to model what is appropriate it was easier; not having students in a class who know what it is to demonstrate is difficult. I find that maybe the smallness isn't the real key—it may be that students need more opportunities to see appropriate behaviors that I can draw attention to. Usually I'm the only one modeling the appropriate ones".

Ultimately, we decided to modify the procedures for the two smaller classes. The teacher noted that with all the students on the same level, peers rarely modeled appropriate behavior. In addition, having peers help one another to understand what was expected did not occur as often as it did with heterogeneous groupings. We decided to have students simply record a plus each time when they heard a chime and they were doing what was expected. The teacher provided many examples, demonstrated the behavior, and sounded the chime on the average every 2 minutes. By the end of the period, most students understood, although the teacher noted that she still had to challenge some students' ratings.

Discussion and Implications

Even with the existence of many effective strategies to address inappropriate behavior and to facilitate the inclusion of students with disabilities, adoption and sustained use of these by practicing teachers is a major concern. In this paper we have described a classwide peer assisted self-management program designed to address feasibility issues inhibiting sustained use of research-proven interventions. Our studies of class-wide self-management in an inner city school and a rural school suggest that CWPASM is an effective and feasible approach for educators to teach students how to take responsibility for their own behavior. Findings from CWPASM implementation in the rural school are preliminary, qualitative in nature, and must be interpreted with caution. Nevertheless, the results from the study in the inner city school (Mitchem et al., in press) indicated CWPASM was acceptable and feasible for teacher and students and effective at improving appropriate classroom behavior of the group and target at-risk students. Preliminary data from the rural setting suggest that CWPASM may be more effective in heterogeneous groupings. This tentative finding should be empirically tested with other groups of students and other teachers.

Other implications of this research derive from the issue of what teachers indicate influence their use research-proven practices. As noted earlier, classroom management remains a top-rated concern of teachers and administrators despite the existence of proven effective management practices (Stage & Quiroz, 1997). Preliminary analysis of survey data (Mitchem, 2000) indicates that teachers want programs to be feasible and have simple step-by-step instructions on how to use them. This is neither new nor surprising information. What is surprising, is that teachers still perceive the absence of feasible interventions with simple "how-to's" to be the greatest obstacle to their use of research-proven interventions. This suggests a compelling need for researchers to re-examine not only their development of feasible classroom interventions, but also their dissemination of these interventions in simple, step-by-step terms. The medical field, responding to this same research-to-practice gap, has formed the Cochrane Collaboration of Effective Clinical Practice to prepare and keep up-to-date reviews of the effects of interventions to improve professional practice (Bero & Grilli, 1998). In analyzing why teachers fail to choose and continue to use empirically supported interventions, perhaps we should also critically examine the most effective and efficient interventions to improve educators' professional practice.

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FUNCTIONAL BEHAVIOR DATA COLLECTING & TARGET BEHAVIORS

Due to current laws it is critical that educators from all arenas become competent in the area of behavioral functional analysis. Many schools are now required to have a school-wide discipline plan and the means to implement it.

We believe strongly that the use of appropriate behavior plans can be used to alleviate problematic behaviors that can later manifest themselves with tragic results to a community.

All the strategies contained within can be applied to classroom settings and other school environmental situations by the practitioners at the site. This information can and has been taken by educators to design behavior management plans in rural and urban settings.

In order to really make a difference for children and families, we must help educators become aware of the strong need for our students to become socially and emotionally capable and competent.

The theoretical information is backed by such programs as the Boy's Town Model and Sopvis-West's "Tough Kids" program. Research indicates that we must identify problematic behavior and reinforce appropriate behavior at a much higher rate.

With the reauthorization of the Individuals with Disabilities Act (IDEA) in 1997, a mandate was created to gain a further understanding of the nature of a child with behavioral issues. This mandate put forth the use of functional analysis as a means to help gain this understanding of the nature of the behaviors in question. The term functional analysis has been used, in the past few years, rather loosely. It has been used interchangeably with several other terms such as functional behavioral assessment, functional assessment or ABC (antecedent, behavior, consequence) assessment. In Reno, Nevada, the Washoe County School District became involved with the organization and the delivery of functional analysis in 1993. The School District's definition of a functional analysis is simple and inclusive of a team approach. The definition refers to the collecting of information across a range of settings regarding a student with behavioral issues from a broad spectrum of sources. The end result is to make decisions collaboratively as to why these behaviors occur, how these behaviors function as a reinforcement to the child, and then arrive at a course of action to include positive reinforcement of appropriate behavior.

Initial Focus

The initial step is to define clearly the specific behaviors in question. The behaviors should be observable and measurable by more than one person. Once the behavior is clearly defined, a systematic series of observations are established, usually three or four observations within the classroom or specific environment where the targeted behaviors are occurring. Generally this number of observations is required to accumulate enough data to make reasonable team decisions. Each observation is in various environments and lasts an average of 45 to 50 minutes. The observations are measured through the use of percentages in respect to time and the activities and behaviors occurring.

During the observations, several of the following questions are evaluated: Is the child attending to task or not attending to task? Does the student exhibit disruptive behavior? How is that defined, and what does that behavior look like? A close look at transitions will show if the directions given are followed in the less structured situation. Transitions are the time period between activities. Is the change of focus from one activity to another structured or unstructured? How many redirects are needed to maintain an extended focus to task? Are those redirects effective or not and are these redirects needed to refocus to task or behavior? A close look at the nature of the activity the student is involved in is crucial. Is the activity a teacher-directed activity, a small-group activity, whole-group activity, or is the student working independently, or are students involved in free time? Free time is a good time to look at interaction patterns between other children or adults. Perhaps the student is not even participating at all. What percentage of time does the student require one-on-one assistance? Is the assistance effective? Is the child overly active, and what does that look like? Does teacher close proximity produce an increase in the attending behavior or not? Does the use of verbal positive reinforcements produce positive behavioral results? These are just a few of the many questions pursued during the observational phase of the functional analysis.

Environmental Considerations

After the classroom observations are completed, the environments where the targeted behaviors occur are evaluated. The forms used determine whether or not the specific categories within the environment are an asset for the child, neutral for the child (which means no effect can be ascertained), or a liability for the child, or the evaluator is unable to conclude the effect of the environment. The categories covered in the environmental analysis are the physical setting, social setting, the nature of the instruction and the activities and the student participation, scheduling factors and predictability, degree of independence, communications, and whether the student has choices. Under each of these categories there are approximately 5 to 11 subcategories used to measure the impact of the environment.

The next step is to review the previous environmental, curricular, and behavioral interventions completed and establish if there has been a positive change, or no change, or a negative change as a result of the interventions attempted. Along with this process, interviews with the student, teacher, parents, or any other significant individuals, a review of all the testing information, confidential information, and the cumulative file is completed. If medications are used by the student, charting of behavior is done in order to examine the clinical responses to the medications in the home and school environments. Behavior frequency counts and intensity records are kept which provide a clear measurable picture of the problem at hand.

At this point, a Child Study Team or an IEP Team will meet to organize and present the information for the establishment of a behavior plan based on positive reinforcement for appropriate behavior.

Behavior Plan

Target behaviors are the behaviors that need to be focused on to help the child succeed within the school environment. Observable, measurable, and well-defined target behaviors lead to the most appropriate behavior plan for the individual student.

A discussion of avoiding judgmental terms when dealing with behavior issues can become an appropriate target behavior. A poor attitude, no sense of internal controls are examples of behavior that cannot be observed. Specifically describing behavior can help one avoid emotionality when dealing with behavioral issues.

Classroom rules and the use of appropriate physical modifications to the environment should be included in the behavioral plan as it applies to the student within such a setting. The correct usage of appropriate positive reinforcement schedules in the use of student contracts and behavior plans cannot be overemphasized.

An appropriate behavior plan then has the following components:

1. Target behaviors - never more than three. Start with the behavior that is causing the child not to succeed within the setting.
2. Interventions - what will be done differently to help change the student's behavior?
3. How will positive reinforcement be used?
4. How will negative consequences be used in an appropriate manner?
5. What support will be needed to carry out the behavior plan?

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INCREASING CARING AND REDUCING VIOLENCE IN RURAL SCHOOLS

Predatory crime does not merely victimize individuals, it impedes and, in the extreme case, prevents the formation and maintenance of community. By disrupting the delicate nexus of ties, formal and informal, by which we are linked with our neighbors, crime atomizes society and makes of its members mere individual calculators estimating their own advantage, especially their chances of survival amidst their fellows. Common undertakings become difficult or impossible, except for those motivated by a shared desire for protection (Wilson, 1993, p. 26).

There are many reasons for educators, parents, students, representatives of the media, politicians, business leaders, and academicians to express interest and give focused attention to the issue of violence in schools. Recent atrocities in Colorado, California, Arkansas, Oregon, etc. demonstrate predatory behavior with horrific consequences. Feelings of distress and fear threaten to tear further at an already besieged confidence in America's only universally guaranteed social program: public education. Thus, understanding school violence is important in developing programs that promise to reduce or prevent it. Violent behavior by students in the school setting appears to be a rather recent phenomenon and, as such, does not possess an extensive literature or developed theory.

Attention to violence in rural schools has received even less attention than violence in urban settings. Much of what is discussed in the educational literature is borrowed from criminology. In the introductory commentary to their extensive review of literature on the subject, Wilson and Hernstein (1985) put in simple terms what is known about violent behavior that is generally classified by our society as criminal:

- Predatory street crimes are most commonly committed by young males
- Violent crimes are more common in big cities than in small ones
- High rates of criminality tend to run in families
- The persons who frequently commit the most serious crimes typically begin their criminal careers at quite a young age
- Persons who turn out to be criminals do not do very well in school.

Youth violence does not occur in isolation but emanates in some yet to be understood fashion in the social communities in which it occurs. Therefore, we begin here by describing the communities and environments in which youth violence emerges and outline some recent changes that may contribute to what is happening in rural schools and communities today.

THE RURAL SCENE

One fourth of Americans reside in rural areas (Monsey, Owen, Zierman, Lambert, & Hyman, 1995), yet wide variances exist between communities. Despite each rural community's unique qualities, a 1994 research report by the U. S. Department of Education's Office of Educational Research and Improvement shows some distinguishing characteristics of rural communities as a whole.

Rural Communities

The 1994 Department of Education's report shows that rural America

Is sparsely populated, averaging fewer than 40 residents per square mile

- Is located outside an effective commuting range of a metropolitan area
- Has a higher poverty rate than urban areas, a rate that is rapidly increasing (Hodgkinson, 1994, refers to rural youth as the invisible poor)
- Has a jobless rate higher than metropolitan counties
- Lags behind the rest of the nation in job and income growth
- Characteristically provides jobs that require few skills and pay poorly
- Is no longer supported by the farming industry
- Has had a dramatic exodus of workers since 1980
- Has a rising rate of families headed by women
- Has recently begun to experience the resettlement of large numbers of urban families in rural areas seeking safer environments for rearing families. Some people are moving out of rural communities because these communities lag behind in the opportunities they provide for higher education and/or well-paying occupations. This lag, according to Hobbs (1994) "is both cause and effect for the continuing migration of the most highly educated youth from rural communities" (p. 18).

Rural Schools

According to the U.S. Department of Education's 1994 report, 46 percent of school districts in America are classified as strictly rural with many more located in districts officially defined as urban. Most rural districts are likely to be in the North central, Southern, and Western parts of the United States. Schools in these rural districts generally

- Have enrollments of fewer than 400 students
- One out of five has fewer than 100 students
- Are located in small school districts; 41 percent have less than 300 students
- Have student achievement levels that are generally higher than those of the disadvantaged urban students but lower than those of the advantaged urban
- Have small budgets with few government resources funneled their way (McLean and Ross, 1994)
- Per pupil cost of operations are not necessarily less in rural schools; one study showed such costs to run about 18 percent higher than the state average (Rural Policy Matters, April, 1999)
- Some of the funding inequities can be attributed to a commonly held belief that rural schools do not have the problems of racism, violence and general decay that more metropolitan schools have (Petersen, Beekley, Speaker, & Pietrzak, 1998).

The Changing Rural Scene

Historically, rural communities have been portrayed as having two-parent families who sat down together to a home-cooked meal after the parents worked in the fields and the children returned home from a trouble-free day at school. Somewhere in this picture was the church that the community members faithfully and collectively supported. "The family, the church, and the school have been at the heart of rural communities since this country was settled. These three institutions have provided the standards of behavior, circles of personal interaction, and a variety of social activities that collectively shape community ethos and identity" (U.S. Department of Education, 1994, p. 21).

The reality today is that rural conditions have changed significantly.

- Rural churches and schools have lost considerable influence in recent years (Hobbs, 1994)
- The tightly-knit rural family that has traditionally been viewed as a stabilizing influence on students and a strength of rural life is also weakening
- Over 50 percent of school administrators in one study felt that lack of parental involvement was the single most important contributor to school violence (Stephens, 1994)

- No matter the size of the school, the perceived causes of violence in a study involving 611 teachers and administrators were lack of family involvement, supervision, and family violence with the stability and emotional atmosphere of the families of the perpetrator to be unstable (Petersen et at., 1998).

Coupled with the altered influence of the family, school, and church, is the economic restructuring of rural communities which has begun to undermine the traditional sense of belonging and reduced local control. Not only is the rural economy directly connected with national and international markets, but rural schools, health care, and other services have become a part of national systems. One consequence of these changes is greater rural community dependency and less autonomy. ...It is increasingly difficult for rural residents to maintain a sense of community when so many things they depend on are located somewhere else (Hobbs, 1994, p. 14).

Violence in Rural Communities

Rural American can no longer be characterized as safe havens from the crime and violence that plagues urban settings but the lack of information on rural violence coupled with mistaken stereotypes are limiting factors in forming a completely accurate picture. Existing information, however, supports the following observations.

- From 1965 to 1992, rape, robbery, and assault rates tripled in rural areas (Monsey, Owen, Zierman, Lambert, & Hyman, 1990)
- Sixteen percent of all violent crime is in rural areas (Monsey, et al, 1990)
- Whites more than Blacks are the victims in rural areas (Monsey, et al, 1990)
- The perpetrator of a crime in rural America is usually a relative of the victim and is more likely to be drunk than perpetrators in urban areas (Monsey, et al, 1990)
- Rural crime rates are actually increasing faster than those in urban areas (Donnermeyer,1994; Bachman, 1992)
- The gap between urban and rural crime and substance abuse rates is closing Hobbs, 1994)
- Between 1959 and 1991, crime rates in urban areas increased more than in rural (FBI Uniform Crime Reports cited in Donnermeyer, 1994)
- From 1988 to 1991, rural crime rates have gone up 8.6 percent, compared to on 3.6 percent for crime rates in urban areas (FBI Uniform Crime Reports cited in Donnermeyer, 1994)
- A 1990 Texas survey of 1004 eighth and tenth grade students from small Texas communities showed that, excepting school supervised environments, 30 percent had been threatened with bodily harm though not actually hurt, and 16 percent had been physically attacked. Eighteen percent said someone tried to force them to have sex when they did not want to (Kingery, Mirzaee, Pruitt, & Hurley, 1990, p. 24).

Violence in Rural Schools

"Despite the perception that non-urban schools are free of violence, communities of all sizes, ethnic makeup, and socio-economic status have experienced violence in schools" (Friday, 1996, p. 24). Many rural public schools, particularly those near large cities, have even worse violence problems than the national average (Kingery, et. al., 1990). Alarmingly, work by Donnermeyer (1994) and Bachman (1992) shows that crime and violence is actually increasing faster in rural than in urban areas. However, "...because of the infrequency of published acts of violence in small schools, rural administrators, board members, and teachers are likely to feel safe (Bachus, 1994, p. 19). As a result, school leaders too often adopt a "wait-and-see" attitude.

Despite the lack of systematic documentation on rural school violence, some studies have been conducted which shed light on the issue. Petersen and a group of researchers (1998) studied violence in school districts of varying sizes, from 12 states, representing all geographic regions of the United States. When rural teachers and administrators ranked their greatest concerns, the results showed that

- Respondents were fearful of verbal and physical threats/attacks from students and from parents
- Nearly half of the respondents had experienced some form of violence at least once in the past two years
- Student to student violent behavior had increased the most (with the exception of organic problems such as crack babies, etc.) and rural schools were unique in their reporting of setting fires/arson

- Rural educators' reports were similar to those from urban and suburban schools when it came to verbal intimidation/threats, pushing and shoving by students, and punching and/or hitting
- Suburban educators reported the highest rates of sexual harassment and urban educators had the greatest amount of fear of getting involved in student disputes
- Of all the respondents, 79 percent saw the ethnic background of perpetrators as generally Caucasian, 81 percent indicated that the perpetrator was male, and the greatest percentage of incidents were perceived to occur at high schools
- Rates of violence in elementary schools and particularly at the middle school level were reported to be increasing.

A 1990 study of rural Texas communities by Kingery and others provides additional information regarding rural school violence. In the year prior to the study

- More than half of the boys and one-fifth of the girls had been in at least one physical fight involving weapons (20 percent of the boys and 6 percent of the girls had been in three or more such fights)
- One-fourth of the students said they had carried a weapon to school
- Almost 40 percent of the boys and 8 percent of the girls admitted carrying a knife to school at least once
- Fifteen percent of the boys reported carrying some other weapon
- Forty-two percent said they could get a handgun if they wanted to
- Students frequently reported engaging in behaviors that placed them at risk for becoming a victim of violence.

Where in the school does this undesired behavior actually occur?

- "Most teachers believe that violence occurs in hallways or under staircases, in the lunchroom or cafeteria, or in unattended classrooms" (Hoffman, 1996, p. 9)
- Students concur but add the gym and locker room as prime sites
- "Most acts of violence occur where adult supervision is minimal, or where there are large crowds of people moving to and fro" (Hoffman, 1996, p.9)
- "...violence is more likely to occur in schools where the quality of education is poor" (Hoffman, 1996, p. 9)
- Rural teachers and administrators reported little violence taking place primarily in the classrooms with small enrollments and where students were monitored by the teacher in charge of instruction (Petersen, et al, 1998). Violence most often occurred in hallways and restrooms, less often on buses, and at extracurricular/athletic events in rural schools
- In contrast, suburban and urban school personnel indicated that "the classroom was an area of high potential for violence" (p. 27).

The increase in interest over school and community violence has renewed the debate over school size. "Of the seven recent deadly school shootings in the US, five took place in schools with enrollments close to or over 1,000. They took place in large towns and rural towns, suburbs and cities. ...According to the research that's been done, smaller and less crowded schools would appear to be generally safer places" (Rural Policy Matters, June, 1999).

The advantages of small schools are gaining national attention. The Governor of North Carolina recently pressed for smaller schools as a means for improving school safety believing that small schools provide a forum for more positive attitudes about school, fewer behavior problems, and improved personal relations (Rural Policy Matters, September, 1999). Similarly, the Vermont Department of Education is proposing an increase in funding for small schools believing that the role of the school in rural communities is vital (Rural Policy Matters, April, 1999).

The public's concern about the condition of violence in rural schools and communities has been awakened, partially due to the more recent acts of violence in schools that are outside of large urban communities.

Consequently, the urge to undo mistakes and rectify what has gone awry is growing. The following section addresses perceived causes of violence and crime in rural areas and outlines what has been offered as solutions.

CAUSES OF RURAL VIOLENCE

One commonly held belief is that crime and violence in rural areas originates in nearby cities and is simply a migration. This attitude places blame on conditions and people elsewhere. Womble & D'Amico (1994) argue that rural areas must look to individual communities for the root causes of increased violence and then identify related solutions.

Donnermeyer (1994) examined FBI Uniform Crime Reports to identify causes for crime and violence in rural communities and identified six sets of factors that suggest causal relationships leading to the increase in rural crime rates.

1. Culture. Traditional rural areas, principally in the Southern and Western states and rural areas dominated by mining and timbering historically have higher rates of violence, which are associated with the use of violence as an accepted means of resolving conflict (Nibsett, 1993 as cited in Donnermeyer, 1994).

2. Poverty. Like many urban neighborhoods, rural areas with persistent poverty over several generations can exhibit higher crime rates, especially poverty-related incidents.

3. Urbanization. Rural areas having higher crime rates, especially poverty-related incidents, are generally (a) located near interstates or large cities and other urban developments, (b) suburbanized (large outer clustering of homes and businesses), (c) locations for second or seasonal homes or other tourist developments, and (d) locations for retired householders moving out of the city.

4. Rapid Change. Rural areas are increasingly subject to economic and population change that is very rapid and, regardless of whether the change represents an increase or decrease in population or an increase or decrease in jobs or per capita income, rapid change can weaken local community norms that reinforce lawful behavior.

5. Organized Crime. Some rural areas are the location for organized crime activities, which may include activities ranging from farm equipment or garden tractor theft to drug production. Drug trafficking gangs and their presence can increase crime--especially violent crime.

6. Urban Export. The movement of urban criminals to rural areas will increase crime, but this phenomenon is relatively rare, although it is a common explanation voiced by long-time members of rural communities. The vast majority of people arrested by rural law enforcement are residents of the area.

In addition to the six variables cited by the Uniform Crime Statistics, other factors merit attention. Rural poverty, social change, substance abuse, and the availability and ownership of guns add to the "deadly mix" that seems to promote violence in rural communities and their schools.

7. Substance Abuse. The availability and abuse of controlled substance in rural communities and schools has increased dramatically in the past ten years and appears to approach much the same level as that reported in urban areas.

- Seventy-one percent of rural students indicated availability of drugs at school (Bastina & Taylor, as cited in Donnermeyer, 1994)
- Use of marijuana and LSD were reported as being significantly higher for urban communities but use of smokeless tobacco was higher among rural youth, particularly in 8th and 12th grades (Donnermeyer, 1994)

- One in five rural males were found to abuse smokeless tobacco on a daily basis (Donnermeyer, 1994)
- Use and abuse of alcohol were also found to be similar for urban and rural students (Donnermeyer, 1994)
- Rural perpetrators are more likely to be drunk than perpetrators in urban areas (Monsey, Owen, Zierman, Lambert, & Hyman, 1995).

8. Guns. Nationally, the sale of weapons of deadly force has increased for several years and has reached all walks of life. These weapons exist in large numbers and are easy for school youth to obtain. For example, Kingery and others (1990) found that, in rural Texas, 40.8 percent of boys and 8.9 percent of girls had carried a weapon to schools. Some 40 percent of the boys admitted carrying a knife at least once and 19 percent reported carrying one daily. Slightly more than 6 percent of the boys said they carried a handgun to school and 1.6 percent admitted to carrying a gun on a daily basis. Forty-two percent of the students said they could get a handgun if they so desired.

9. Poverty. Levels of poverty found in rural areas significantly impact youth. A report undertaken for the Children's Defense Fund (Sherman, 1992) reported that rural children live in poorer families more frequently than do their urban counterparts and dropout rates are reported to be higher than in urban schools. An investigation by the U.S. Department of Education (1994) showed that, in 1988, while urban youth had the highest rates of risk factors, the number of rural eighth graders having two or more risk factors was significantly higher than eighth graders in suburban areas.

Prothrow-Stith and Quaday (1996) sum up the complexity of seeking for root causes of violence, whether rural or urban. The complex interaction between poverty; racism; drugs and alcohol; the loss of jobs and living wages; gangs, unrestricted and overabundant supplies of guns; lack of personal opportunity and responsibility; disinvestment in communities, schools and after-school activities; family violence and our national admiration of violence plays a critical role in sustaining our culture of violence. (p. 153). Given these conditions, public interest has been aroused and recommendations for restoring safety to schools and communities are becoming fairly numerous.

DISCUSSION

Probably the most obvious conclusion that can be drawn from the material presented is that incidents of violence and other crimes are increasing. Additionally, these incidents of violence are pervasive. Violence is in schools, on the streets, and in homes. Perhaps most disturbing is the observation that youth violence is one of the areas which is rising most rapidly. Finally, it seems obvious that influencing youth violence situations is going to require what is referred to as "systems thinking". Solutions cannot be located in any one place or deal with only one facet of life. Simultaneous actions on a variety of fronts will be necessary. In regard to school safety in general, Grady (1996) said, "We don't know which problem we are working to solve" (p. 33). The challenge is to determine the relevant problems, find their interrelatedness, identify the antecedents, and, finally, attempt interventions to resolve them. This effort would require the collaborative efforts of researchers, educators, parents, and communities of an unprecedented magnitude, but, when it comes to saving America's youth, do we dare to say, "It can't be done"?

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Collaborative Education Models

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COLLABORATION AND ROLE RELEASE: CAN DIVERSTE SPECIAL EDUCATION TEACHERS & REGULAR EDUCATION TEACHERS WORK TOGETHER TO SERVE STUDENTS WITH VISUAL IMPAIRMENT OR WITH LEARNING DISABILITIES

Abstract

The numbers of students with learning disabilities are increasing in our schools. This article discusses one possible component of learning disability, visual-processing dysfunction. A small portion of students with learning disabilities exhibits visual-processing dysfunction. Visual difficulties arising from learning disabilities and visual disabilities are compared. Illustrations of mutual strategies between the two populations of students are provided. Isolation of staff and restriction of opportunities for informal collaboration is a more frequent condition in smaller and rural schools. Leadership of administrators is an essential condition for the development of collaboration between special education staff of diverse interests, especially in rural areas.

Learning challenges resulting from learning disabilities are receiving greater attention in our school systems. The number of children diagnosed with learning disabilities has increased by over one million students, an increase of 198%, between 1977 and 1993 (MacMillan, Gresham, & Bocian, 1998; Manset & Semmel, 1997). Increased resources are needed to serve this growing population. Learning disabilities can have both educational and social effects that can have far-reaching economic impact over an individual's lifetime. The appropriate concern of parents and special education teachers have sometimes led them to ask teachers of students with visual disabilities/impairments (TVI) to evaluate the student with learning disabilities or to provide recommendations.

Learning disabilities received greater attention from both the educational establishment and the media following the passage of PL 94-142 in 1973. Media has promoted the idea of learning disabilities meaning dyslexia (Beauchamp, 1987) and dyslexia as seeing letters or words reversed. However, learning disability takes many forms. They may include a variety of information-processing disorders including auditory-processing and language, attention, motor, and visual perceptual, all of with can contribute to disabilities in reading, spelling and mathematics (Smith, 1994). Thus, one component of learning disabilities may involve visual perception as a visual-processing dysfunction. Perhaps this is why special education teachers occasionally ask TVIs to assess, provide recommendations, or serve students with learning disabilities with a visual perceptual component.

Deficits in visual perception or visual-processing dysfunction account for only a portion of children with learning disabilities. The majority experiences a variety of language-processing difficulties (Beauchamp, 1987; Smith, 1994). Students with learning disabilities may also experience other visual difficulties other than a visual-processing dysfunction. Fifty to eighty percent of students with learning disabilities may still show deficiencies in basic visual skills (Cohen, 1988).

This article proposes to discuss one component of learning disability, visual-processing dysfunction. The educational effects of a visual-processing dysfunction will be compared to some of the educational effects of a visual disability. Deficits in basic visual skills, that may aggravate the impact of a learning disability, will be briefly discussed along with two controversial methods of remediating basic visual deficits. All challenges faced by a student with learning disabilities need to be addressed, including visual challenges. However, the focus on compensating and remediating for visual-processing skills should not reduce the compensation and remediation provided for other, potentially more disabling components of the learning disability. Most students with learning disability have significant language-processing difficulties which are often more severely educationally disabling (Smith, 1994).

Visual difficulties among students with learning disabilities take two forms. Only a portion of students exhibits visual-processing dysfunction. Visual-processing dysfunction is included as one of four information-processing variations by which individuals with learning disabilities may be categorized: motor skills, attention and auditory processing, language, and visual perceptual skills. Other visual difficulties involve the binocular and accommodation functions of the visual system and are referred to as basic visual skills. While deficits in these basic visual areas are not considered an information-processing disorder they can potentially exacerbate other existing disabilities (Beauchamp, 1987).

Similarities between Behaviors of Students with Learning Disabilities and Visual Disabilities. Students whose learning disabilities include a visual component may demonstrate some behaviors similar to those demonstrated by students with visual disabilities. A few of the potential common behaviors included frustration, difficulty identifying letters, lack of judgement in spatial relationships, poor eye-hand coordination, and difficulties in language and mathematics (Sacks & Silberman, 1998). Smith (1994) states students with learning disabilities and a visual-processing dysfunction may experience difficulties in ocular-motor skills, visual perception, gross and fine motor, visual memory, and appear disorganized and unstructured, features which are commonly found among students with visual disabilities.

Therefore, what is the difficulty? Why not jointly share the responsibility for educating students with learning disabilities? The answer is that while some of the compensatory strategies are similar, the disability and many of the needs are different.

Differences in Etiology. Students whose learning disabilities including a visual-processing dysfunction experience problems interpreting visual information even when the visual information is clear. Learning disabilities have a neurological etiology (American Academy of Pediatrics, 1992; Smith, 1994). Students with visual disability, whose remaining vision is sufficient to read some form of print, have problems obtaining sufficient visual information, but can interpret what they are able to see. A visual disability is commonly established because of a physical defect in a part of the visual system (eye, optic nerve, etc.) resulting in a significant loss in acuity (clarity) and/or visual field (size of area viewed). Despite these fundamental differences in etiology of visual problems, some, but not all of the strategies used to make more efficient use of the vision are similar.

Visual-processing Dysfunction. Resources on the Internet (Ldonline.org, 1999; Ldonline, 1999) contain rich explanations of visual processing dysfunction and common strategies, not for remediation, but for easing students' ability to interpret information. The most common functional limitations resulting from a visual-processing dysfunction are in the areas of visual sequencing, visual memory, visual motor integration and dysgraphia, visual figure ground, visual discrimination, and spatial orientation. Most of the above features are considered components of visual perception.

Difficulties in visual sequencing and spatial orientation can result in reversals in letters, words, or numbers. Spacing and relationships of one symbol to another are important cues in reading and mathematics. Difficulties in visual memory may result in problems in reading comprehension and recall of information. A student may experience visual agnosia - problems recalling object or symbols. One result may be difficulty consistently recalling letters, words, and numbers. Visual motor integration (VMI) problems may be expressed as clumsiness or even as poor handwriting skills (dysgraphia). VMI problems may create difficulty copying from the board. Another area of visual-processing difficulty could be visual discrimination and visual figure ground. These skills involve the ability to pick out the visually important features and individual characteristics from all available visual information. A student with figure ground or visual discrimination difficulties may have trouble seeing a word or image against other words or images, i.e. reading a line of print on a page. The student may have trouble distinguishing similar letters or be able effectively to use charts and graphs.

Learning disabilities and visual disabilities both exist on a continuum of severity, from severe to mild. Milder forms of both disabilities may be helped by a number of strategies used by TVIs. Were as the causes of the visual difficulties vary between students with visual disabilities and students with learning disabilities, the simplest strategies may be similar.

The shared strategies include enlarging print size, modifying worksheets, using a visual window or ruler, and using multiple senses while teaching. Enlarging print size, because it reducing the "density" of the information and helps with visual discrimination and figure ground, may help a student with learning disabilities. The greater space provides more writing room as an aid to handwriting difficulties.

Modifying worksheets is common strategy available to teachers in both disability areas. Adding structure or simplifying the layout can modify worksheets. Darkening or highlighting lines may help direct a student's attention to important features. Dividing the paper into clear parts may help a student stay organized. Color-coding may help a student with learning disability but is less likely to aid the student with visual disability. Reducing irrelevant information on a page will reduce the complexity of figure ground.

For some students using a cover paper with a window cut into it will help a student ignore irrelevant information and stay focussed on the task. A window may also help with tracking difficulties. Sometimes a line guide such as a ruler or student finger may also achieve the same effect.

The use of multiple senses may help both students with learning disabilities who are having trouble visually interpreting the information they see, and students with visual disabilities who may be able to interpret information but have trouble seeing it. Writing paper with raised lines may aid both groups by adding in some tactual information. Teachers may find students are helped when directions are read aloud, writing on the blackboard or overhead is verbalized, or a student is allowed to use a tape recorder to take notes or listen to a book-on-tape.

However, it is important to remember that the primary interventions for students in those two disabilities areas are different and the individual needs of the student vary greatly. No one method will work for every student and a special education teacher need to discriminate areas of possible problems unique to each disability (Mather & Roberts, 1994). A TVI, asked to consult on a student with learning disabilities, may not have much to offer in primary areas of learning difficulties resulting from a language processing dysfunction while being able to offer useful secondary strategies.

Basic visual deficits. The number of students who show deficits in basic visual skills and who are learning disabled is larger than the portion of individuals found in the general student population (Rosner & Rosner, 1987). However, deficits in basic visual skills do not automatically result in reading difficulties. Many students, with and without learning disabilities, adequately compensate without formal intervention (American Academy of Pediatrics, 1992). There is disagreement as to whether students who do experience reading difficulties may benefit from some form of intervention (American Academy of Pediatrics, 1992; Cohen, 1988). While not the cause of the learning disability, these deficits can exacerbate other existing challenges faced by the child. Students with learning disabilities should receive multidisciplinary team evaluations including a visual evaluation by optometrist or ophthalmologist (American Academy of Pediatrics, 1992; Beauchamp, 1987). Vision screening by the school is not designed to diagnose subtle visual defects. Neither are TVIs trained to diagnose subtle visual defects.

Visual therapy. Sometimes, parents have told teachers that their child has gone to a behavioral optometrist. Either the child may be receiving visual therapy or the parents had been given a vision therapy program (eye exercises) for their child. The parent may want the teacher to complete the exercises at school. Vision therapy (vision training, orthoptics, eye training, and eye exercises) is a process for correcting some eye movement disorders and a few visual perceptual disorders. Vision therapy consists of non-surgical treatment usually involving motor activities. Vision therapy may be as simple a patching an eye, as mundane as exercises with a penlight or complex, involving electronics and biofeedback. Visual therapy is done to treat functional deficiencies in order to maximize visual efficiency and effectiveness. The exercise program is most commonly completed in the optometrists' office.

Tinted lenses. A recent innovation is the use of tinted lenses or overlays to alleviate reading disorders. The lenses or colored overlays are purported to promote reading by increasing reading time, improve reading ability and visual perception and reducing difficulty with light sensitivity, headaches, and watery eyes. The problems addressed by tinted lenses and overlays, which underlie visual perceptual difficulties, are referred to as scotopic sensitivity syndrome (SSS). An extensive review of research undertaken by the American Optometric Association (1999) found that testing on the effectiveness of tinted lenses is ambiguous with results varying. Most of the studies are not repeatable. Another finding is that students diagnosed with SSS, upon further testing, frequently exhibited measurable vision deficits treatable through appropriate prescriptive correction and or vision therapy. Most students treated for their underlying visual difficulties no longer qualified as SSS. Based on their review of literature the American Optometric Association calls for further research on the beneficial claim of tinted lenses, comprehensive eye/vision examination wit emphasis on binocular vision function for all individual with reading difficulties, and a continued multidisciplinary approach for the diagnosis and treatment of learning disorders.

Should you ask for suggestions or services by the TVI? A TVI provides a service for students with visual disabilities. In most states, services are based on need, and the label of the disability determines the provider of the service. Technically, this means that a TVI can not formally serve a student with learning disabilities unless they also are labeled visually disabled. Check with your own state for their special education rules and regulations and for their district policies.

This does not mean that a TVI may not be willing to consult with a special education teacher or parent of a student with learning disabilities. The TVI's training and experience with students with visual disabilities may provide creative forms of old strategies. For example, the TVI may have found student more willing to use a brightly colored post-it note to focus attention rather than a line guide such as a ruler or finger. However, the TVI probably can not provide direct service.

TVI's generally do not receive training during their teacher-training program on visual therapy, as provided by behavioral optometrists, or training in scotopic sensitivity and the prescription of tinted lenses and overlays. This is not to say that "your" TVI may not have an interest in these areas and have attended workshops or taken advantage of training opportunities to acquire this knowledge. However, if he/she has done so it was for their own interest and not a required component of the job description. The TVI's priority will be to provide the needed educational services for students with visual disabilities.

Sometimes the special education teacher can feel at a loss with a student with learning disabilities. A parent may approach them with a vision therapy program they have received from a behavioral optometrist, they may have read an article about scotopic sensitivity syndrome and have questions, the diagnostic assessment may have revealed a visual-processing disorder as a component of the learning disability and they wonder if the TVI may have more information. For students with milder forms of learning disabilities the TVI will have information similar to that available from a teacher of students with learning disabilities. Since service is not available from the TVI, use the TVI for professional brainstorming and consultation. Use other resources for more in-depth information, not forgetting that the major disabling component of most students with learning disability is probably language-processing (Cohen, 1988; Eden & Stein, 1995; Smith, 1994). Even the American Optometric

Association states in their policy statement on visual therapy that a MDT assessment is of greatest concern because of linguistic, non-visual concerns.

It is important to remember that the primarily interventions for students in those two disabilities areas are different and the individual needs of the student vary greatly. No one method will work for every student and a special education teacher need to discriminate areas of possible problems unique to each disability (Mather & Roberts, 1994). A TVI, asked to consult on a student with learning disabilities, may not have much to offer in primary areas of learning difficulties resulting from a language processing dysfunction. The answer is that some of the strategies are held in common but not the neurological base d interventions of learning disabilities. One must be careful not to focus attention and strategies too heavily on visual difficulties while reducing the attention given to the language-processing component.

Conclusion

Students with visual impairments are also increasing in number but continue to remain a low incidence disability (Sacks & Silberman, 1998). In rural school districts, they may be scattered throughout the similarly scattered schools. The result is often less frequent visits by the teacher of students with visual impairment. Creative methods should be developed to ensure these students needs are appropriately met.

Students whose learning disabilities include a visual component may demonstrate some behaviors similar to those demonstrated by students with visual disabilities. A few of the potential common behaviors included frustration, difficulty identifying letters, lack of judgement in spatial relationships, poor eye-hand coordination, and difficulties in language and mathematics (Sacks & Silberman, 1998). It is important to remember that the primarily interventions for students in those two disabilities areas are different and the individual needs of the student vary greatly. No one method will work for every student and a special education teacher needs to discriminate areas of possible problems unique to each disability (Mather & Roberts, 1994). However, the secondary methods of intervention between the two populations can be shared.

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COLLABORATION IN A RURAL COMMUNITY: THE UNIVERSITY OF WEST ALABAMA'S PATHWAY TO RESPONSIBILITY

Teachers have raised many issues concerning the meaning of inclusion and its implications for the placement of all students with disabilities within the general education classroom. The University of West Alabama is meeting the challenge of inclusion by facilitating collaborative efforts between general and special educators in rural, low socioeconomic settings through its innovative program in special education. We believe, at the University of West Alabama, that if successful inclusion is to be realized then diversity must be linked with individual programming. Inclusion involves dramatic change and educational reform. Teacher education programs must change, classrooms must change, teachers must change, and materials, roles, responsibilities, and curricula – all must change. These changes represent a monumental endeavor for any university and pose a particularly difficult task for the University of West Alabama with its limited available resources and isolated location.

Certainly, we cannot imagine all of the possible problems that will arise as inclusion moves forward, especially in rural areas where change is slow. Ultimately, teacher attitudes must be altered and commitments made to the mission of inclusion if educators are going to work through the long-term issues of change. Inclusion provides an opportunity for schools to transform educational systems and improve the process of all students learning. Inclusion involves a choice – a choice regarding personal attitudes and beliefs about all students, especially those who are labeled as different.

Perhaps choice is the most important issue needing to be addressed by teacher education programs – both general and special education programs. Faculty and students enrolled in our special education/collaborative teacher program have created a poster presentation demonstrating how the University of West Alabama is addressing the issue of choice in rural Alabama. The objective of this presentation is to share with other leaders in the field of education how we at the University of West Alabama are succeeding in meeting the demands of inclusion in rural Alabama.

Faculty from the program of special education, undergraduate, graduate students and staff at the University of West Alabama have established close ties with veteran teachers in West Alabama by taking a proactive approach to education. Our instructors actively participate with elementary, middle and high school personnel in the area by serving as facilitators of sound teaching methods and fostering collaborative relationships between university and school personnel.

The University of West Alabama has generated an innovative model for our teacher education program, which includes the collaborative teacher. The collaborative teacher recognizes the social nature of learning as well as the power of the collective community. At the University of West Alabama, we encourage and promote the collaborative process across all areas of pre-teaching requirements for K-6 and 6-12 grades. Within the coursework required, students at the University of West Alabama learn collaborative techniques to extend and enhance the implementation of inclusion for all students in the educational arena. Collaborative philosophy with an emphasis on *in vivo* rural education is enhanced and implemented within the program coursework.

Students work closely with faculty, local teachers in the field, and other students enrolled in our collaborative program. Together, we create learning centers for students with severe disabilities, research different syndromes related to special education, create and disseminate pamphlets and brochures to share this information with local schools, hospitals, doctor's offices and, small businesses in an effort to help educate the public and foster future transitional relationships.

Other areas through which the University of West Alabama's special education program promotes the inclusion of all students in our area is by encouraging our students to become active members in the community. Collaborative relationships with local businesses and public agencies are not formal but are oftentimes informal yielding many opportunities for our students to become active participants in these relationships.

Students enrolled in our collaborative teacher/special education program are excited about the changes taking place in education and very optimistic about their future and the future of the students they will soon be teaching. Change is always scary, especially to educators who have little control over change, but here at the University of West Alabama, we welcome change and look forward to the choices we have as educators.

We are excited about our new special education program at the University of West Alabama and of our students! We want to share our excitement with those willing to listen in hopes that our excitement will "rub" off on them as well. The collaborative teacher/special education program at the University of West Alabama has been approved by the Alabama State Board of Education, The National Association of State Directors of Teacher Education and Certification, and the National Council for Accreditation of Teacher Education.

That's just a little of what we think is special about special education at the University of West Alabama!!

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THE EFFECTS OF PEER-DELIVERED SELF-MONITORING STRATEGIES ON THE PARTICIPATION OF STUDENTS WITH DISABILITIES IN GENERAL EDUCATION CLASSROOMS

Historically, students with disabilities have not been encouraged or taught to self-manage their lives despite what we know from practice and research (Agran, 1997). Self-monitoring techniques have been successfully taught to and used by students who have mild, moderate, or severe mental retardation (Agran & Martin, 1987; Browder & Shapiro, 1985; Harchik, Sherman & Sheldon, 1992; Hughes, Korinek, & Gorman, 1991; O'Leary & Dubey, 1979; Rosenbaum & Drabman, 1979).

One means of delivering self-monitoring instruction to students with disabilities is through the use of peer-tutors. A number of studies have demonstrated that peers can deliver instruction effectively (Farmer-Dougan, 1994; Greenwood, 1984; Marchand-Martella et al., 1992), and using peers to mediate instruction for students with disabilities has been shown to benefit both the student and the peer (Allen, 1976; Campbell, Brady, & Lineham, 1991; Kennedy & Itkonen, 1994). Using peers to teach self-monitoring strategies to students with severe disabilities represents a potentially effective means to extend the participation of these students in general education classes.

The purpose of the present study was to examine the effects of peer-delivered self-monitoring strategies on the participation of five students categorized as severely disabled in general education activities. Ancillary purposes of this study were to examine the accuracy of self-recording behavior of participating students, determine the fidelity of instruction of a set of behavioral skills by peer tutors, and determine if the participating teachers reported a change in the "fit" of the participating students in their classes.

Methods

Participants

Students. Five middle school students participated in this study. These students were selected because they all were receiving special education services for students with severe disabilities, were working on IEP goals in general education classes, and because their parents were interested in promoting self-determination in their children. Seldom did any of the five students demonstrate behavior generally considered to be disruptive, however, each student required assistance in such areas as expressing her- or himself, asking for help, or speaking loudly and clearly enough to be understood.

Table 1

Student Characteristics

	Age	Classification	Reading Level	Language	Spch/ Lang. Instr.	Gen.Ed. Class (grade)
Karol	13	MR/Sev.	2.4	low	Yes	Spanish (6th)
Jewel	15	MR/Sev	2.3	low	No	History (8th)
Jerry	14	MR/Sev	2.3	low	Yes	Art (8th)
Daniel	12	MR/Sev	2.1	low	Yes	Art (7th)
Cindy	13	MR/Sev	1.8	low	No	Reading (6th)

Teachers. Four regular educators were involved in the study. All had taught students with mild learning disabilities in their classes, but had limited classroom experience teaching students with severe disabilities. Content subjects of these teachers included U.S. history, art, reading, and Spanish. Although the art teacher taught two of the participating students, the students were in different art classes.

Peer Tutors. Each participating student was assigned an eighth-grade student peer tutor. The participating peer tutors received training in the delivery of praise, positive reinforcement, error correction, and data collection.

Setting. The study was conducted in a middle school (approximately 800 students) in a small town (2,000 population) in the western United States. The school day consisted of seven periods of 44 minutes each. Typical general education class sizes were 30 to 35 students. Supports for special education students included a trained peer tutor as well as content curriculum adapted for the needs of the participating student.

Primary Dependent Measures

The primary dependent measure is expressed as the percentage of correct target behaviors. Peer tutors recorded the daily target behaviors of the students and these data were expressed as percentage of correct responses.

Target Behavior Selection and Definition. Target behaviors were developed in consultation with the classroom teachers. Each teacher developed a list of behaviors considered to promote participation in their classes. These behavior were compiled and ranked and the final list of 11 Target Behaviors contains those behaviors which the teachers indicated were the most important in their classrooms. (See Table 2)

Each target behavior was operationally defined in order to facilitate accurate observation and recording. The student could self-record their behavior at anytime during the class sessions, but all data had to be recorded before she/he left the classroom. Peer-tutors recorded "in class", "in seat", and "appropriate materials" at the beginning of the classperiod. Other behaviors were recorded when they occurred.

Table 2

Teacher Chosen Behaviors to Increase Class Participation

Number	Target Behaviors
1	In class when bell rings
2	Seated when bell rings
3	Bring appropriate materials to class
4	Greet teacher
5	Greet other students
6	Asks questions
7	Answer questions When Addressed by Teacher
8	Sit up
9	Look at teacher
10	Acknowledge teacher
11	Record classwork

Secondary Dependent Measures

Secondary dependent measures were: (a) the fidelity of the peer tutor training of self-monitoring, and (b) the occurrence and accuracy of the students' self-monitoring target behaviors and the change in the specific student-selected goal. The occurrence of self-monitoring was expressed as a percentage of the times that students self-recorded target behaviors divided by the total number of target behaviors. Accuracy of self-monitoring was determined by comparing the self-recording of the participating student with the observational recording of the peer tutor. All results were computed daily and reported as a percentage of agreements over agreements plus disagreements multiplied by 100.

Peer Tutor Instruction

Peer tutors were taught to deliver self-monitoring instruction to the participating students using Lovitt's (1992) self-management training package. Instruction in self-monitoring was given to all selected peer tutors for 8 weeks twice weekly in 20-minute blocks. Self-monitoring instruction delivery for peer tutors was complete when they demonstrated an 100% mastery of the skills taught over three consecutive training sessions.

Treatment Fidelity and Interobserver Agreement. To ensure the appropriate delivery of self-monitoring strategy instruction, an adult paraprofessional observed the peer-delivered training process 100% of the time. The same items used in the initial peer tutor training were used to determine how accurately the peer tutor delivered the instruction. An agreement of less than 80% during baseline and maintenance (100% during training) initiated peer tutor retraining. Retraining took place before the next day's instructional session. Three peer tutors required a retraining session. Once retrained, none of the peer tutors required further retraining. Observers observed 46% of all sessions and the mean agreements of the peer tutors and the observers were consistently high, with a range of 91% to 100%. Only in two conditions across all of the students did the mean agreement fall below 90% (see Table 3).

Experimental Design and Conditions

A multiple baseline across subjects design was used for this study. The experimental conditions included baseline, training, and maintenance.

Baseline. Baseline for the primary dependent variable took place in the general education classroom. During this time the peer tutor observed and recorded the incidence of student target behavior performance. At no time during baseline did the peer tutor reinforce, praise, or correct the participating student for responses or lack of responses of target behaviors. Intervention was initiated only after a stable pattern was observed.

Training. The participating students were taught by peer tutors to self-monitor in the general classroom. Generally, teachers used the first 30 minutes of class time to review previous instruction, provide new instruction, and initiate guided practice for the students in class. Typically, the last 10 minutes of each class was reserved for students to work on class assignments. Although peer tutors and participating students worked together throughout the class period, the last 10 minutes of the class period was devoted to self-monitoring strategy instruction.

First, the peer tutor introduced and discussed with the participating student how the student would learn to keep track of her/his own behavior. Next, the peer tutor gave examples and non-examples of the target behavior. Third, the peer tutor taught the participating student how to correctly use the self-recording sheet. The peer tutor provided practice in self-monitoring and gave the participating student feedback and praise throughout the training. The peer tutor also encouraged the student to ask as many questions as needed before the participating student was expected to begin self-monitoring. Finally, the peer tutor encouraged the student to turn in the self-monitoring sheet to the researcher at the end of each class.

Maintenance. After the participating student demonstrated appropriate self-recording with an 80% agreement between student and peer tutor for three sessions, direct intervention was withdrawn. No further praise and feedback were given but the peer tutor continued to give the participating student a self-monitoring sheet at the beginning of each class period. Maintenance data were taken daily by the peer tutor through direct observation. When a student's correct target behavior performance dropped below 80% for two consecutive sessions, the peer tutor retrained the student. During retraining, the peer tutor provided praise and positive feedback to the student. Once the participating student's target behavior increased to 80% or higher for two consecutive sessions, retraining was discontinued and the peer tutor discontinued reinforcement. Three students received retraining during maintenance.

Social Validation. Social validation data were obtained from two sources. First, each general education teacher was asked at the end of the maintenance condition to rate the change in participation of the student in the general education classroom. The teachers were also asked to describe the fit of the participating student in the classroom and if the self-monitoring instruction disrupted the class routine. Second, each participating student was asked before the training condition, as well as at the end of the maintenance condition, to rate her or his participation in the general education class. Students were also asked at the end of the maintenance condition if they thought they fit into the general education class.

Results

Primary Dependent Measure – Target Behaviors

Table 3 shows the combined Target Behavior performance data for all five students across the baseline, training, and maintenance conditions. Table 4 reports mean performance for each Target Behavior for students per condition. All students demonstrated a stable pattern during baseline. Each student's performance of Target Behaviors increased when training was introduced. Despite marked variability for some of the students these changes persisted during the maintenance condition. There appeared to be no pattern or cycle in any of the students' performance attributable to any particular day of the week, holiday, or special event.

Table 3

Mean Percentage of Correct Responses and Agreement by Experimental Condition Between Students and Peer Tutors

Student	Condition	Target behaviors[a]	Self-monitoring[b]	Student / peer tutor agreement
Karol	Baseline	31.6	- -	- -
	Training	68.3	68.9	94.4
	Maintenance	85.4	85.8	99.3
Jewel	Baseline	32.7	- -	- -
	Training	82.0	82.0	86.5
	Maintenance	91.2	95.5	93.6
Jerry	Baseline	20.1	- -	- -
	Training	91.0	95.5	91.0
	Maintenance	95.1	97.3	97.3
Daniel	Baseline	29.8	- -	- -
	Training	89.5	91.0	100.0
	Maintenance	88.4	96.8	91.0
Cindy	Baseline	13.4	- -	- -
	Training	76.4	82.0	94.8
	Maintenance	77.3	98.5	78.6

Note. - - indicates no available data

[a] Data collected by peer tutor. [b] Student self-recorded data

Student Self-Monitoring

Although the students' self-recorded data were higher than the mean levels reported by the peer tutors, the differences were generally negligible. Neither students, peer tutors, or observers reported any problems by students in self-monitoring or self-recording their behavior.

Teacher Rating of Student Participation Change

No teacher reported any disruptions in the general classroom routine resulting from the self-management training. Most of the teachers reported that the students participation in the classroom improved. However, Jerry's teacher reported: "I don't see any consistent change - in fact he responds appropriately only when reminded." The teacher felt that ."..he creates a lot of disturbance. He does not work at all." She also stated, "I feel he has not benefited from the experience, nor has the class." On the other hand, this same teacher reported concerning Daniel that he "...has done very well. He learns and has followed through with constant improvement. He has worked well and tries to please. He is always happy and positive. Other kids have learned from him." She ended her statements by saying, "A great experience!" Cindy's teacher reported that "she seems less frightened...she knows what is expected of her" and that "she follows directions better."

Table 4
Mean performance of Target Behaviors by Experimental Condition

Student	Condition	Target Behaviors										
		1	2	3	4	5	6	7	8	9	10	11
Karol	Baseline	100	100	0	0	0	13	13	0	88	38	0
	Training	100	100	89	44	0	67	44	78	67	56	89
	Maintenance	100	100	90	80	10	65	70	100	100	90	100
Jewel	Baseline	78	67	11	0	0	0	0	11	100	100	11
	Training	100	75	50	50	50	25	100	75	75	75	75
	Maintenance	100	100	83	83	83	67	67	100	92	92	100
Jerry	Baseline	84	84	4	0	0	4	0	8	52	4	0
	Training	100	100	75	50	75	100	100	100	100	100	100
	Maintenance	94	94	100	50	100	94	94	100	100	94	100
Daniel	Baseline	93	93	0	0	0	30	60	0	44	30	0
	Training	100	100	100	80	80	100	80	80	100	100	100
	Maintenance	100	100	93	93	86	64	86	57	93	86	100
Cindy	Baseline	77	74	0	0	0	0	0	0	0	0	0
	Training	75	75	100	100	75	50	50	75	50	50	75
	Maintenance	100	67	67	83	67	67	83	83	83	83	67

1=In class when bell rings, 2=Seated when bell rings, 3=Bring appropriate materials to class
4= Greet teacher, 5= Greet other students, 6= Asks questions, 7= Answer questions
8= Sit up, 9= Look at teacher, 10= Acknowledge teacher, 11= Record classwork

Students Pre- and Posttraining Ratings of Class Participation

Before baseline began, each target behavior was read to the students and they were asked to rate their participation. When the students were near the end of maintenance, they were again asked to rate their participation in the general education classroom according to the target behaviors. They were also asked to answer the questions: "Do you think that you fit in the (general education) class? If you do, why do you think so

Each of the students believed that her or his participation in class was a little better at the end of the study than at the beginning. Jewel was the only student to rate her post- classroom participation significantly higher than her pre-classroom participation.

Concerning student perception of fit in the classroom, Karol felt that she fit in the class because "I get to know the kids. We get to play games." Jewel stated she felt that she fit in the class because "I have friends and it's fun." Jerry felt that he fit in the class because "I am a student in there. They make me feel welcome." Daniel remarked that "I like to be with them. I like to have fun." Cindy also felt that she was part of the general education classroom, although her reasons ("play in the dark" and "have fun") did not seem to fit the activities of the Reading class.

Discussion

The study investigated the effects of peer-delivered instruction in self-monitoring strategies on performance of students with severe disabilities in the general classroom. The baseline data revealed that these behaviors were not part of the participating students' daily behavior. When instruction in self-monitoring was initiated in the training condition, correct student performance of target behaviors rose dramatically. These gains in behavior performance continued during the maintenance condition without retraining in the case of Jewel and Jerry, and with only two sessions of retraining for Karol, Daniel, and Cindy. The fact that all five students dramatically changed specific behaviors by utilizing self-monitoring in a general education classroom suggests that self-monitoring may be an effective tool to be used with other behaviors targeted for change.

No problems concerning student ability to self-monitor were reported by peer tutors or observers during the study. On the contrary, the data indicate that students began to appropriately self-record from the beginning of the training condition. The mean percentage agreement between student self-recording and peer tutor recording of correct target behavior performance was in the high 90s for the training and maintenance conditions. These high mean agreements indicate that, despite some difference between student self-recording and peer tutor recording, students with severe disabilities are reasonably capable of gathering data on their own behavior.

As previously mentioned, all the students in this study dramatically increased their performance of the teacher-chosen behaviors in those teachers' classrooms. Generally, the teachers observed the change in their students' participation. However, teachers perceived the extent of change in participation by some students differently than indicated by the target behavior data.

None of the teachers reported any problems with peer tutors delivering instruction to the participating students. This suggests that peer tutors and the instruction they delivered are viable options for special educators searching for a method of delivering support and services in the general education environment. The data indicate that using peer tutors to instruct students with severe disabilities in self-monitoring increased those students' participation in the general classroom and that this change in classroom participation was recognized by the teachers of four of the five students.

Another aspect of determining the social validity of this study is the impact on the participating students. Every student reported that her or his fit in the classroom had improved after she/he learned to self-monitor. Generally, students stated that they felt they fit in the general education class because they had friends there, they were liked, or they had fun in the class. Every student rated her- or himself as participating to a greater extent after instruction in self-monitoring than before that instruction. Additionally, teacher ratings of the students were generally in agreement with both the observational data and the student ratings. Changes in participation ratings suggested that the students recognized their behavior had changed. Greater self-awareness may indicate a move by the students toward enhanced self-determination (Wehmeyer et al., 1998).

Finally, the study confirms that peer tutors can effectively deliver instruction. The peer tutors in this study delivered self-monitoring instruction at a high level, consistent with the training they received. The findings suggest that well-trained peers can be an effective tool in delivering self-management instruction to students with severe disabilities.

The study demonstrates that students with severe disabilities can learn to take greater control of their actions, increase their participation in inclusive settings, and increase their positive attitudes toward those settings. This is done without increasing the workload of the general education teacher. Nondisabled students can deliver instruction in the general education classroom without disturbing the classroom environment. This study demonstrates a promising means of promoting more and better participation by students with severe disabilities in inclusive settings without unduly burdening either special or general education teachers.

In summary, this study suggests an effective means of preparing students with severe disabilities to participate more fully in general education settings. Participating students in this study reported feeling a part of their general education classrooms and indicated they were aware of an increase in their classroom participation. Teachers generally reported that the students demonstrated increased participation after receiving instruction in self-monitoring for specific participation behaviors. In all, self-determination strategies may greatly promote the participation and inclusion of students with severe disabilities in general education, and their use is strongly advocated.

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EVALUATING A RURAL TEACHER PREPARATION PROGRAM'S EFFECTIVENESS THROUGH QUALITATIVE CHANGES IN PARTICIPANTS' CASE STUDY RESPONSES

The lag between theory and practice has been a concern in teacher education since the 1930s (Dewey, 1933). This concern has given rise to increased emphasis on reflective activity in field experiences (Posner, 1991), and to tailoring unique programs for non-traditional students (Burstein & Sears, 1998; Rosenberg, 1998). The use of case studies can provide a catalyst for students to reflect on theory and research first in relation to case content and then in relation to their actual practice. Case studies allow the student to examine their own reactions, in turn reflecting on their beliefs about practice. (Cranston-Gingras, Raines, Paul, Epanchin, and Roselli, 1996). In addition, the literature supports the notion that teachers' beliefs change after they implement and see the effects of new teaching procedures (Allinder, 1994). Case studies can also be used to note progress during an intern's development. Once they reach a certain comfort noting their own progress, they can turn their attentions to student learning (Cranston-Gingras, Raines, Paul, Epanchin, and Roselli, 1996). The LD/Inclusive Schooling Project used case studies in both formative and summative program evaluation.

As a primary component of program evaluation, in conjunction with rating scales, video-taped lessons, and an overall program questionnaire, multiple presentations of case studies were used in a rural learning disabilities/inclusion teacher preparation project to illuminate emerging themes of change in written responses of project participants. This presentation addresses methods of analyzing these changes, in terms of emergent themes, patterns, and linkages, their application to special education teacher preparation, and implications for further research.

The percentage of children with disabilities attending regular education classes has increased every year since the passage of The Education for All Handicapped Children (PL 94-142) in 1975, and by all indicators, this trend will continue. Approximately 80% of children with disabilities are attending regular education classes all or part of their programming day (USDE, 1997). IDEA Amendments of 1997 prioritize personnel preparation for interdisciplinary teaming and problem solving with students, parents, other educators, agency representatives, and key community persons to ensure smooth transition for students with disabilities 20 USC 1474(b)(3)(A). Each specialized professional or other team member brings a unique perspective to interactive teaming. Professional interactions require that each team member be able to express their views, actively listen, and value the contributions of all team members (Morsink, Thomas, & Correa, 1991). Interdisciplinary planning and coordination require the development and honing of skills in the following areas: 1) consultative assessment and problem solving, (2) interpreting evaluative material, (3) implementing strategies to improve instruction and learning, (4) assessing learning needs and providing instructional activities, (5) and effectively participating in referral and evaluation processes that ensure appropriate placement decisions.

LD/Inclusive Schooling Teacher Preparation Program Design

The following courses were offered participating teachers: Introduction to Special Education; Curriculum and Methods for Special Education; Assessment; Classroom and Behavior Management; Introduction to Learning Disabilities; Strategies for Students with Learning Disabilities; plus three Inclusion Modules as follows: Module 1) Inclusive Schooling Issues and School Teams; (Module 2) Assessment and Instructional Strategies for Use in Integrated Classrooms; (Module 3) Inclusive Schooling Models and the Change Process. In addition to coursework, their state required learning disabilities practicum experience was carried out in their own instructional settings under collaborative supervision by a university supervisor and two cooperating teachers, one from regular education and one from special education.

Methods

Participants

A total of 18 regular classroom teachers and 2 vocational educators began the program, with seventeen successfully completing all requirements. These participants were from schools in central to northern West Virginia, a rural portion of a federally recognized rural state. At least three identified students with learning disabilities were enrolled in each teacher's class. Seventeen teachers returned completed case study responses. These seventeen teachers ranged in age from 23-46 with a mean of 37.11 years. Years teaching ranged from 2 to 24 with a mean of 12.47 years experience. Five participating teachers taught at the elementary level (grades 1-4), nine at the middle school level (grades 5-8), and three at the secondary level (grades 9 to 12). Fifteen were undergraduates and 2 had master's degrees. Three were male and four were female.

Data Collection

Case studies were distributed and collected three times during the program involvement of this cohort of participating teachers, prior to their attending their first offered class, after coursework was completed, and again after practica and modules were culminated.

Each case study presentation was considered to be one interview. Five questions comprised the protocol, with the fifth question being asked in four parts. Examples of questions asked of participants are as follows:

1. What are some things you might tell the teacher to do?
2. What are some teaching recommendations you can make the student?
3. What are some activities you would recommend for the child?
4. How would you respond? (What other investigations should be conducted? Should any other professionals be consulted?) Give your rationale for each response.

5a. Which placement do you feel would be most appropriate for the student at this time?
5b. Explain your response to the question above. Justify the placement. Why is it least restrictive? Why did you reject other placements?
5c. How would you explain the concept of learning disabilities to the student's parents?
5d. What are some practical suggestions you might offer the student's parents in terms of home management?

Analysis

Case study response data were directly transcribed by the project secretary into Hyperqual2, Version 1.0 (Padilla, 1993), structured interview platform. Individual data cards were labeled to indicate program participant, interview date, and card number for easy reference purposes when revisiting original context. Data entries were identified upon transcription as emanating from first, second, or third interview. Data were read by the Project Coordinator after each interview was transcribed to attain an overall feel for responses to questions asked, and a hard copy of the original entries was retained. To identify emergent themes, data were tagged, sorted, and merged into relevant categories. Next, the data were reviewed in relation to their interview identifiers to determine patterns of change (Miles & Huberman, 1994). Only first mentions were recorded for each participant between interviews one and two. The same process was repeated between interviews two and three. To discover relationships among themes, links between data chunks were then sought out and analyzed. Finally, data sets were copied and reviewed by each member of the project evaluation team in relation to the evaluation plan that had been established for the overall program.

Findings

Emergent Themes

Seven emergent categories, or response groups, were initially identified as follows: 1) Evaluating and Making Referrals, (2) Changing Instructional Behaviors, (3) Establishing Behavioral Systems, (4) Facilitating Home-School Communications, (5) Providing Academic Supports, and (6) Using Technological Supports. A seventh category was reserved for Infrequently Mentioned Changes.

Change Patterns for Emergent Theme

Evaluating and Making Referrals - (all changes in this theme category were made between 2nd and 3rd interviews.)

More sophistication in evaluation of needs and making referrals
More recognition of the benefits that inclusive settings can bring
Increased emphasis on the provision of supports, both for participating and for learning.

Changing Instructional Behaviors

Evidence of increased collaboration with special services
Increased emphasis on curriculum-based assessment and error analysis
Increased data collection and data-based decision-making
Increased desire to provide an open milieu for students' verbal exchange

Establishing Behavioral Systems

Increased development of systematic approaches to the learning environment
Increased use of methods for promoting student self-management and self-determination

Facilitating Home-School Communications

"Gather information from parents to help plan."
"Keep parents from exerting too much pressure."

Providing Academic Supports

Ignoring student stumbling over words and more frequently praising student accomplishments
Sub-dividing learning tasks and reinforcing correct responses more often
Learning strategies evolved to be more individualized and specific.

Using Technological Supports

Increased use of interactive computer games and concrete manipulatives

Infrequently Mentioned Responses

Only one teacher continued to express feelings that the child would benefit from being placed in a separate classroom.

Linkages Among Data Chunks

Analysis of data links revealed relationships between implementing more systematic approaches to behaviors and increasing the application of positive reinforcement for academic successes. This then related to increasing the students' direct involvement in learning activities, which was in turn related to teacher observed increases in school attendance. Implementing more systematic approaches to behaviors and self-management techniques also displayed links to facilitating home-school communications through talking with parents about behavioral approaches used in the classroom.

Changes in teacher behaviors regarding questions directed to related service personnel asking for recommended activities linked with statements made in the category of Evaluating and Making Referrals about supporting inclusion. Asking related service personnel for recommended activities also linked with increasing implementation of learning strategies within the category of Academic Supports.

Discussion

Implications for Special Education Teacher Preparation

Given the current condition in the field of a nationally recognized teacher shortage, the findings from this study have implications for the preparation and retention of teachers in their own instructional settings. The findings from this study indicate changes in all interdisciplinary planning and coordination skill areas originally outlined by the LD/Inclusive Schooling Project program evaluation team. These skill areas are restated as follows: 1) consultative assessment and problem solving, (2) Interpreting evaluative material, (3) implementing strategies to improve instruction and learning, (4) assessing learning needs and providing instructional activities, (5) and effectively participating in referral and evaluation processes that ensure appropriate placement decisions. Although behavioral issues remain a difficult and stress producing area for all teachers, these participating teachers were clearly striving to implement and improve their systematic approaches to the learning environment. This reflected in their increased use of positive reinforcement for academic successes and their efforts to encourage self-management and self-determination. These teachers indicated increased reliance on collaboration among key team members, especially parents and related service personnel. All but one teacher strengthened their commitment to serving students in the least restrictive environment. Teachers gathering information from parents to help with educational planning and informing parents of the approaches used in their classrooms indicated a recognition that parents have an integral role and parity in the education of their children under IDEA, 1997.

Implications for Further Research

Allowing students to explore their imagined critical responses and note changes in those responses over time has provided both a basis for reflective learning experience for participating teachers and an opportunity for the evaluation team to analyze program design and delivery over time. It would be interesting to explore differences in responses between more and less experienced teachers, or among teachers at elementary, middle, and secondary grade levels. It would also be useful to compare the use of case studies for program evaluation in rural areas with their use in urban areas.

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INTERNET SITE RESOURCES (FOR RURAL ACCESS) DEDICATED TO AFFORDABLE AND EXPEDITIOUS PREPERATION AND TRAINING OF CLASSROOM AIDES, NECCESARY AS A RESULT OF MANDATED INCLUSION

An initial discussion of Inclusion will properly address the need for classroom assistance in the rural setting. Inclusive teaching integrates individuals so that students are taught without prejudice against gender, sexuality, ethnicity, culture, religion or special needs (Department of Education, 1994). Our schools are a community of learners that mirror the environment - in this case - we are speaking to the specific small/rural town. By inclusive education, the literature asserts that all students are treated as part of a whole (O'Brien & Forest, 1989).

Opponents of inclusion write that a general education environment inhibits the learning for students with significant physical or cognitive disabilities (Van Dyke, Stalling, & Colly, 1995). They have labeled this philosophy as the *inclusion delusion* (Van Dyke, et al., 1995, p.485). In contrast, literature claims that regular education students are not hindered in their education when working with *differently-abled* students. It has been found that these students improve self-esteem and exhibit increased academic ability (Staub & Peck, 1994). Further examination of research by Gartner and Lipsky (1987) reported fifty studies "comparing the academic performance of mainstreamed and segregated students with handicapping conditions… the mean academic performance of the integrated group was in the 80th percentile, while the segregated students scored in the 50th percentile" (p. 375). However, to make inclusion work successfully, the community must provide strong support for teachers and their students (Yatvin, 1995).

As the philosophy of inclusive teaching matures, teachers will find that it is difficult to teach as a single unit - in fact they will find they need the support of administrators with the insight to promote the hiring of support personnel. In rural schools this may come as paid paraprofessionals, educational assistants, para-educators - even certified teachers seeking employment. Often, the support may be volunteers, parents or other relatives within the community willing to donate time.

Rural schools, in general, have less access to personnel with expertise in low-incidence handicapping conditions. Because of this, strategies for supplying resources to teachers providing an education for these special individuals, are needed in rural areas more so than in metropolitan or populous areas. Obtaining strategies for the acquisition of Internet and interactive CD-ROM information will be applicable to the regular classroom teacher facing mandatory inclusion. This paper focuses on the resources available to promote awareness of affective tools for the regular teacher facing inclusionary challenges; acknowledging the wide spectrum of disabilities/special needs which data supports rural educators must deal with each and every day.

As was mentioned above volunteers may be parents. Rural areas may recruit retired teachers or administrators, members of the community literacy council and older teens interested in a career in education [Future Teachers of America]. For these individuals, though the training is sparse, it does exist for those interested in becoming educational paraprofessionals.

Paraprofessional assistants are only trained in a few States using any formal training procedures [See Kansas training requirements for paraprofessionals]. Few States have formal professional development opportunities such as the annual Kansas Paraprofessional Conference. As a result most paraprofessional training is haphazard at best. Paraprofessionals in rural areas are not normally recruited, as are teachers [note that many teachers are recruited only a month or less before the beginning of the school year, and paraprofessionals are often hired within a week prior to the first day.] Given that paraprofessionals must deal with many low incidence conditions which their supervisors may be unfamiliar with it is easy to say that most beginning paraprofessionals do not have the requisite skills for the jobs for which they are initially hired. This situation is only exacerbated in rural areas where paraprofessionals are usually volunteers.

The Internet has innumerable sites, providing information, which can be accessed and used by teachers and paraprofessionals in rural areas. The Internet is recommended because if its ease of access, potential for individualization, and its ability to provide answers to questions and problems which are unique to low incidence handicapping conditions, which describe almost all handicapped children in rural settings.

Rationale for developing a self-instructional training program:

Teachers either in special education, or regular education, do not have the time to train paraprofessionals at the same time they are teaching classes. They do have time to search for and find Internet tutorials to scaffold and train the much needed, though inexperienced or uninformed Assistant. The following offering lists sites on the Internet which can be used to access instruction for paraprofessionals (teachers assistants) in an affordable, efficient and timely manner. We advocate the development of self-instructional tours of material, available on the Internet, which can be read and interacted with, hopefully without adversity, as the paraprofessional and the primary instructor join in the tour of the locations.

Instruction for searching the Internet for people and materials:

In some cases the paraprofessional will be able to do his/her own searching if given training on how to search the Internet. In other cases the teacher will need to learn how to conduct the searches to facilitate the development of the paraprofessional. *In either case the two must work jointly.* There are a number of sites available on the Internet that will teach one how to conduct searches, such as:

Start with Module 30 in Online Teaching: An Instructional Hypertext at http://home.okstate.edu/homepages.nsf/toc/cmltoc. Information in this module will allow a beginner to search using a single search engine. The techniques used provide additional tutorials as they are needed, (e.g., for using multiple search engine searches such as dogpile.com.). More tutorials are available at http://204.17.98.73/midlib/tutor.htm, http://www.lib.berkeley.edu/TeachingLib/Guides/Internet/FindInfo.html, http://www.askscott.com/tindex.html, http://www.albany.edu/library/internet/, And http://www.thewebtools.com/hotstuff/pr050498.htm.

Knowledge needed for working with a specific disability follow;

Knowledge of that disability (places to find out about specific disabilities)
Knowledge of general special education techniques (sites which provide content)
Knowledge of general teaching techniques (sites which provide content)
Knowledge of where to find materials [for out of level use] (sites which provide materials)
Knowledge of how to adapt materials (sites which provide content)

- Knowledge of that disability: There are many places to find out about specific disabilities. These Internet sites can be general sites such as the Blindness Resource Center site (http://www.nyise.org/orgs.htm), NICHCY (http://www.kidsource.com/nichcy/), The American Association of Mental Retardation home page (http://www.aamr.org/disres.htm), Disability Sites on the WWW (http://www.prostar.com/%7E thearc/dislink.htm) and the like.

- Knowledge of general special education techniques: These sites provide content related to the teaching of special needs students. Examples include Internet Resources for Special Education (http://w3.one.net/~julio_c/), Medweb Disabilities (http://www.ccemory.edu/whscl/medweb.disabled.html), Curry School's Office of Special Education page (http://curry.edschool.vi.edu/e/ose/categories/ld.html), Special Education Resources on the Internet (http://www.hood.edu/seri/serihome.htm), National Center to Improve Practice in Special Education Through Technology, Media and Materials (http://www.edc.org/FSN/NCIP/), etc.

- Knowledge of general teaching techniques: These are sites which provide content related to teaching Best Practices in Teaching and Learning, University of Indiana, http://www.indiana.edu/%7Eteaching/excerpt.html, the Instructional Effectiveness Training Program at Oklahoma State University http://home.okstate.edu/homepages.nsf/toc/ieppc1 and http://home.okstate.edu/homepages.nsf/toc/ieppc2 ,Teaching for Inclusion at the University of North Carolina http://www.unc.edu/depts/ctl/tfitoc.html, etc.

- Knowledge of where to find materials: This can be for out of level use, or for sites which just provide materials. Some example sites included Teachers Helping Teachers page (http://www.pacificnet.net/~mandel/specialeducation.html), Bookwire Electronic Children's book index (http://www.bookwire.com/links/readingroom/echildbooks.html), The online Educational Resources site (http://www.ed.gov/EDRES/edcurric.html), etc.

- Knowledge of how to adapt materials: Module 17 in Online Teaching: An Instructional Hypertext at http://home.okstate.edu/homepages.nsf/toc/cmltoc.

Examples of Internet training opportunities for Volunteer and Paid Paraprofessional;

Formatting a Self-instructional Training program for individual use:

Bookmarked tours with guide questions can be used to lead learners through a variety of sites on the Internet. See an example of such a tour in psychology at http://home.okstate.edu/homepages.nsf/toc/TDT Guide questions can be developed to focus the attention of the paraprofessional on any aspect of the material. Product based tours can be developed which focus on the needs of a specific child. This is particularly useful when a child with a new disability comes to the district. Search for answers to specific questions related to treatments for low incidence conditions can also be conducted. When information is acquired it can be structured either by the teacher or by the paraprofessional [depending on the skill level] and implemented to assist the child. This new information can be easily integrated into the IEP. Grouped below are sites which could be integrated into bookmarked tours or which could provide information for individual paraprofessionals.

Adaptive Instructional Design: Dealing With Under Prepared Learners, Module 17 in Online Teaching: An Instructional Hypertext at http://home.okstate.edu/homepages.nsf/toc/cmltoc
http://www.anachem.umu.se/eks/pointers.htm
http://www.cabrillo.cc.ca.us/thinking/patterns.html
http://tebbit.eng.umd.edu/simulation/comp.simulation/list_topics.html
http://www.mobileregister.com/education/catchup.htm

Scaffolding for the paraprofessional:
http://edweb.sdsu.edu/people/bdodge /scaffolding.html
http://hamlet.cogsci.umassd.edu/SWPI/DesignInCS/ccdnotes.html#scaffolding
Module 1 of Online Teaching: An Instructional Hypertext at http://home.okstate.edu/homepages.nsf/toc/cmltoc

Questioning Techniques. http://home.okstate.edu/homepages.nsf/toc/IEPTOC/Question
http://www.emich.edu/public/fcie/askingquestions.html
http://www.muskingum.edu/~cal/database/questioning.html
http://www.udel.edu/cte/97book/question.html
http://info.utas.edu.au/docs/cult/tips.html

Making presentations:
Preparing Effective Oral Presentations, a tutorial, KU Medical Center,
http://www.kumc.edu/SAH/OTEd/jradel/Preparing_talks/TalkStrt.html
How to Give a Bad Talk, http://www.cs.wisc.edu/~markhill/conference-talk.html#badtalk
The Virtual Presentation Assistant, a tutorial, http://www.ukans.edu/cwis/units/coms2/vpa/vpa.htm

Assessing and developing prerequisite knowledge:
Assessing and Developing Prerequisite Knowledge—Module 36 in Online Teaching: An Instructional Hypertext at http://home.okstate.edu/homepages.nsf/toc/cmltoc
http://wwwclass.unl.edu/MGMT198D/notebook-sch.html
http://www.academyonline.com/academy/athens/latin/sample/sample1.htm
http://pzweb.harvard.edu/Left/PZInfo/Research/Restxt/StuSA.htm

Collaborative teaching:
http://www.covis.nwu.edu/GEV/AL_3_7_87_0.html
Collaborative Teaching, module 49 in Online Teaching: An Instructional Hypertext at
http://home.okstate.edu/homepages.nsf/toc/cmltoc
http://www.soc.hawaii.edu/~leonj/leonj/leonpsy/gc/intro.html
http://mwus.mokwon.ac.kr/~mis/research/download/coop2.html
http://www.cs.usask.ca/grads/vsk719/academic/890/project2/node10.html

Summary

Inclusion support is far more likely to succeed if administrators and teachers agree on the support necessary. Douglas Biklen of Syracuse University, cited in Facing the Challenges of Inclusion, (Willis, 1996), takes the opinion that often administrators provide a very high level of support just to appease the general education teacher. Biklen cites an example of an autism placement within a regular classroom. He found it *excessive* that three adults worked with the student - however, please note the adults were the 1) regular classroom teacher, 2) teaching assistant, and 3) a full time special education teacher, who also served two other students with challenges concurrently. Is this considered excessive? Didn't the teaching assistant, just perhaps, serve as the single adaptation of support for the classroom teacher and the autistic student?

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http://www.OBRO.com/ACRES/OSU-papers.html

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LEADERSHIP ACADEMY: A SYSTEMIC CHANGE SYSTEM THAT MAKES EDUCATIONAL DIFFERENCES FOR CHILDREN

Literature supports the importance of opportunities for systemic change. (Carnegie Council on Adolescent Development: Clark and Lacey, 1997; David, 1990; National Alliance of Restructuring Education, 1991). The Arkansas Leadership Academy provides an excellent example of how a state-supported initiative facilitates systemic change. This paper discusses how Arkansas Leadership Academy developed and what its process follows to support change.

Arkansas Legislators in 1991 passed legislation that funded a leadership endeavor to support systemic change in education. Requests for proposals went out, and a number of universities responded. The University of Arkansas at Fayetteville Arkansas received the initial funding, but with great insight the authors of the grant proposal understood that to achieve true state systemic reform, the entire state must become involved. To that purpose, other universities that had responded to the RFP were invited into the grant as partners; this inclusion formed the first phase of the larger system that is recognized currently as the Arkansas Leadership Academy.

Over the years the Leadership Academy has grown. Most of the Arkansas colleges and universities are now included in the partnership as well as many professional organizations, the educational cooperatives, government agencies including education and Arkansas Educational Television Network, and business and industry (Walmart and Tyson Foods). The director is housed at the University of Arkansas, but the every participant feel the Leadership Academy is truly a state project.

The VISION of the Arkansas Leadership Academy is to create a statewide learning community where [1] all participants continually learn with and from each other, [2] school districts (311) and partnerships (44) form an enthusiastic learning community, [3] all students and staff want to participate, and [4] all participants report success at levels extraordinary in expectation.

The MISSION of the Arkansas Leadership Academy is to work together to develop (1) educational leaders, (2) school administrators, (3) teachers, (4) school board members who go out and build ideal learning environments in Arkansas public schools which result in improved educational achievement.

The PURPOSE is to support collaboration, shared decision making, team learning, risk taking, and problem solving. The Arkansas Leadership Academy encourages the design of creative and innovative approaches to develop human resources and the maximum use of existing human resource to establish learning communities in Arkansas public schools.

Leadership Academy uses educational institutes as the vehicle to support systemic change. The Individual Leadership Institute is a week-long experience designed to work with the leaders in each partnership and help leaders enhance their leadership skills. Deans, Superintendents, CEO's, Directors participate in these institutes along with others. One of the requirements to become a partner in the leadership Academy is that the chief executive officer, administrator of a group also attend the individual institute. This request works to assure future support for systemic change from the top governance. As the Leadership Academy gained experience, it invited a wider population of principals, assistant directors and higher education faculty.

Along with the Individual Institute a Team Leadership Institute was developed. Any of the partnerships have the opportunity to send a team of around six to eight persons to Team Institute. The Team Institute is a week-long opportunity for teams to work on specific projects while at the same time learning specific knowledge and skill building information. The knowledge and skill building sessions cover topics such as "how change occurs", "strategic questions", "consensus building", "conflict management", "team building", "parent involvement", etc. The emphasis is placed on how the work of the week can help changes occur at home. Systemic change therefore is encouraged.

A need for increased expertise in technology became apparent as the institutes progressed. A collaboration between the Leadership Academy and the Arkansas Education Television Network created the ELE or Electronic Learning Environment. When Team Institutes run, an ELE occurs at the same time. Although these are two separate institutes, they do a number of things collaboratively. The purpose of the ELE is to support the Team Institute, but also to train higher education personnel and public school personnel in computer and technology.

Each team has a "coach" to help facilitate, provide feedback, and act as an agent to provide necessary support to allow the team to do its work. Over time the importance of the role of the coach increased to necessitate a Coaches Training Institute. This is a three-day opportunity for persons across the state who are interested in helping coach teams to learn facilitating skills and techniques to help their teams do the best work possible.

The individual and team institutes were so successful in supporting education that requests came for a specific Teachers Institute. This institute targets public school teachers and helps them, through instruction and mentoring, to become model and master teachers.

As the success of the Teacher Institute gained recognition, the need for another institute became apparent. The Principals Institute is currently being piloted (Fall 1999), and its purpose is to increase the capacity of principals for change and allow them to build and sustain accountable systems.

The Leadership Academy also supports other programs in the state through seminars, training, and leadership support. The Academy has an extensive research component. which has supported three doctoral dissertations, two state-wide studies, and an extensive data base. Individual evaluations, surveys, and other research are on file. Dr. Beverly Elliot at the University of Arkansas has been the Leadership Academy's Director since its inception, and the Leadership Academy has grown professionally her leadership.

The importance of the Leadership Academy to rural education is clear. The playing field is leveled as each district has the opportunity to send teams and staff to any of the institutes. The only cost to participants is for substitutes and transportation. The opportunity for rural special education is also apparent. Many teams bring members that include special education faculty. Often the topic addressed by the team relates to children with special needs; for example, one of the first teams our university sent dealt with the issue of inclusion and how we were going to address the need in teacher education. The team included special and general educators from the university and local public school. This wonderful experience helped change our teacher education program at the university.

The Arkansas Leadership Academy is an excellent example of a state-supported initiative that facilitates systemic change. Other states might model similar programs based upon experiences of the Arkansas Leadership Academy. The authors of this paper invite further inquiry. Manuals and materials from various institutes provide documents for further details of the program.

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USING THE INTERNET AND INTERACTIVE HYPERMEDIA TO PROVIDE INCLUSION SUPPORT FOR REGULAR CLASSROOM TEACHERS

Technology in America has metamorphosed greatly in the last one hundred years. Education has changed as well, however we must acknowledge this as more of a re-creation of decades past. Policy in many schools again mandates inclusion of all learners in a single classroom. If we take a closer look, even as we embark on the new Millennium, we continue to observe many of the European influences that are the roots of education in our Nation. Experiences in the world bring new, and possibly innovative insights to academia, specifically in regard to technology and education.

Teachers, when trained in new, affordable and user friendly technology, will have valuable tools to enhance curriculum and assessment. Foreseeing positive sociological implications, we intend to support the need for additional investment in creating better and more advanced teachers, by harnessing new technologically proven tools. We will then be able to teach and assess authentically, addressing the needs of each child, while better enabling accurate evaluation. Examples of Internet materials and interactive hypermedia (CD-ROM) which can be provided for regular teachers who have special needs students is the primary purpose for this effort. An example of the hybrid of these technologies is the IDEAS 2000 effort, being developed by the authors of this paper.

Rural schools have, in general, less access to personnel with expertise in low-incidence handicapping conditions. Strategies for providing resources to individual teachers are needed in rural areas more than they are in more populous areas, because in rural communities there are more students included in the low incidence disabilities group. The resources within are therefore more likely to be needed and used in rural communities. Obtaining strategies for the acquisition of Internet and interactive CD-ROM information will be applicable to the regular classroom teacher facing mandatory inclusion. This paper focuses on the resources available to promote awareness of affective tools for the regular teacher facing inclusionary challenges; acknowledging the wide spectrum of disabilities/special needs which are statistically likely in many rural settings.

Only now is the academic community acknowledging the significant need for in-service scaffolding for general teachers in the dynamic classroom environment, due to mandated inclusion. If promoted strictly in an "idealistic" sense, inclusion is most likely applauded by all. However, mandated inclusion, by law, has added classroom management and instructional challenges to the already formidable position of the professional K-12 educator. We as a country are now facing the overwhelming task of catching up with the challenges which are or may be currently addressed by in-service training and/or para-professional support and teacher aides. Tactics for implementing and applying varied new and effective technologies for individual teachers are often requisite in rural areas more than populated communities. We now have a deeper comprehension of how we can provide the maximum benefits to teachers, and their fellow colleagues, through a diversity of technology-rich instructional tools. We must embrace the use of all affordable technology, on the premise that rural education is deserving of every opportunity available. Note that we are not advocating full motion video or other non-pc based technology except as it can be inexpensively captured in a personal computer environment (i.e. CD-ROM).

When referring to hypermedia in education one is speaking of a vast frontier. We would offer that most research is immature, regarding the effectiveness of this virtually untapped educational resource. We, however, welcome the opportunity to discuss CD-ROM technology especially in partnership with the Internet. We are particularly enthused by the potential impact this technology is beginning to have on information-access and the capacity for scaffolding of general classroom educators. We have examined hybrid client side CD-ROM and website technology as an interactive tool that enhances and improves the success of educators facing staggering inclusionary challenges.

If you examine the way that a majority of today's students entertain themselves, when left to their own devices, they choose videotapes, computer games; Nintendo-type interactive games and arcades. We would offer that this interactive existence is expanding to individuals of any age. Imagine for a moment scaffolding for teachers which provides auditory and visual stimuli partnered with interactive educational framework and design. Educators could associate this educational effort with other technological tools or the entertainment that they choose to currently employ. The response, in our opinion, would have enormous potential.

A device that Hypermedia technology provides, is what we refer to as "dynamic assessment". Using a contrived plan of action, which includes technology based testing, today's educators will be able to take the information gained and immediately act on it. Translating into more elaborate processing, the construction of a more relevant knowledge base, promoting key concepts and vocabulary and developing improved study skills are basic examples. Overall, technology based assessment will improve and individualize learning processes.

Additional advantages that computers using Hypermedia provide is unconditional acceptance and accelerated achievement. As human beings, even the best of us, for any of a thousand reasons can have an off day, week… This unfortunately is displayed in both verbal and non-verbal actions and reactions. We are only human and may be hanging on by a thread, having many personal matters to address. The computer displays none of the negative responses, but with infinite patience and unconditional acceptance can be instructed to teach or assess the individual in a very efficient mode. In its efficiency, the computer can also detect those that may be moving at a faster pace and provide very timely acknowledgment of this individual's performance. In supplemental support, computers using advanced application of hypermedia can also provide reports that pinpoint the area where a specific individual needs extra help. In the limited scope discussed above, this interactive technology has already enhanced the classroom and provided the individual with a more supportive and non-threatening environment.

In regard to authentic learning, we now address scaffolding as a constructivist teaching tool. Without delving into psychological theory, we can examine interactive technology's ability to become an active partner, with the teacher guiding their focus. Technology now facilitates the creation of a supportive environment where teachers extend current skills and knowledge to a higher level of competency. "Technological Scaffolding", is what we refer to as, the computer assistance provide that enables learners to perform tasks that cannot be undertaken alone as effectively. In our post-industrial [knowledge/information based] society the new learner must be a self-reliant worker who can function effectively in the modern work environment. Previously, technology transmitted information to a learner in a passive, uni-directional monologue. With Hypermedia we allow learners to interact with the computer in a manner which is pre-conceived by the designer of the chosen technology. For an example of this technology at work, one needs look no further than the arena of learning a second language. Programs are already in place that have voice recognition capability that allow an individual to respond verbally to the computer and the computer assesses the accuracy of the learners efforts. "Technological scaffolding" will also allow teachers, at different locations, to work together with each other regarding their respective students through hyperspace.

Now, Pentium based computers with adequate RAM and assorted peripherals will be realistic additions within the most modest academic budgets. Couple this with Internet access and the proper software and you have a powerful educational aide. Presentation, hypermedia, and web authoring software programs, such as PowerPoint [and the more powerful Digital Chisel, Director, Hyper Studio, PageMill 3.0, and Frontpage 2000, to name a few] will provide the foundation for almost any computer literate educator to develop their own computer driven scaffolding curriculum.

It is easy to understand why technology isn't impacting teachers on a higher level. It is quite possible that the teacher's computer station is used primarily as a "glorified typewriter" and "automated grade book". Considering the over-worked and under-paid nature of their position, this possibility, is a completely satisfactory reason to advocate this expenditure. But when you examine the fact that more and more children with special challenges are being mainstreamed, computer technology will play an extremely significant role in scaffolding the general classroom teacher.

We combine technological expertise and experience with the concept of authentic learning (i.e. authentic teaching) to provide appropriate training materials for teachers. Authentic learning is learning that is not only functional, but also meaningful. To elaborate, this type of learning prepares individual for learning beyond boundaries and therefore is directly related to the perceived functionality. If we examine the vocational and professional climate in America, we see computers at use in almost all facets of the workplace. This is particularly important to teachers in need of professional scaffolding, who are not learning specifically do to access to limited information. In our opinion, the educator's role is not only to provide knowledge and but to obtain additional skills and scaffolding that will allow success that will impact not only the exceptional child, but the teacher and the entire classroom of students.

Creation of valid assessment is an almost impossible task to put on the shoulders of today's teachers. Constantly being asked to modify a test for specific students is a tall order. The inclusion, mentioned earlier, places undo burden on the assessment process. Again, pre-conceived modifications of exams can be provided at the touch of a button, through existing technology. Although this is may seem time intensive initially in this scenario, both teacher and student win. The teacher has more time for the majority of children, who take the standard test, while providing more accurate testing for the child with special challenges. The same holds true for the child assessed to be gifted and/or talented. Test modification skills provide to the educator through technology, at an earlier date, may provide the more challenging academic climate this child needs to reach their optimal potential.

Having mentioned authentic learning earlier, we now address scaffolding as a constructivist teacher's tool. Without delving into psychological theory, we can examine interactive technology's ability to become an active partner, with the computer guiding the focus of the learner. Technology now facilitates the creation of a supportive environment where learners extend current skills and knowledge to a higher level of competency. "Technological Scaffolding", is what we refer to as, the computer assistance provided, that enables learners to perform tasks that may not be undertaken alone. In our post-industrial society the teacher must be a self-reliant worker who can function effectively in the modern academic environment. The new software and hardware available allows teachers to interact with the computer in a manner that is pre-conceived by the designer. For an example of this intuitive technology already available for purchase (no development needed), one needs look no further than the arena of learning a second language. Programs are already in place that have voice recognition capability that allow an individual to respond verbally to the computer and the computer assesses the accuracy of the students efforts. The use of E-mail is an obvious advantage for the special education teacher, when, for instance working in the collaborative: brainstorming mode, regarding a particular success with a common problem. This could include chat rooms for regular and/or special education teachers; places that help you learn special education techniques, etc.

An example of the CD-ROM and web-site hybrid is a powerful combination, while the academic world catches up with Internet technologies. CD-ROMS have the ability to bring the client side user massive amounts of inexpensive multimedia, while conveniently located locally on the learners computer. The other half of the equation is the Internet. Today's technology in American school systems lacks the power for effective streaming audio and video. Many school computers lack the ability to benefit from many online technologies. Again, the client side CD-ROM avails them of volumes of video, audio, graphics and text data which quite possibly would be next to impossible or untimely if one relied solely on the Internet. The sum of this tandem is a powerful blend of local multimedia data (CD-ROM) and the worldwide online access to the latest and most extensive information on the topic of your local CD-ROM. Many strategies attempt to accomplish this goal but currently, as stated before, the neoteric nature of this concept has yet to offer any standards regarding the success of this hybrid combination.

As already mentioned, the **IDEAS 2000** tandem, with the CD-ROM and website combination of resources, is an excellent example of the scaffolding being developed for the general education teacher faced with inclusion. This packaging method available for a majority of computers will be used to provide an example of what is accessible on the Internet in most school settings by special educators and regular (or general) classroom teachers. An innovative way, in which it can be tailored to meet the needs of regular classroom teachers, with included special needs students, is in collaboration with the hybrid concept of CD-ROM technology. This technique will allow a special education teacher to easily develop materials that can be used by regular teachers and aides who need more information about new special needs students. These students may be new to district or simply at juncture where it is imperative, due to mandated inclusion, that some regular teachers include these students at the beginning of the school year, when such information is at a premium.

Packaging materials so that individual teachers can use them is extremely important. Special teachers typically do not have the time to train all of the regular teachers on how to deal with a new special needs student. This is particularly true in middle school and high school settings. Using programs that are typically included on modern computers you have the technology to prepare or access these materials. Power Point with audio can be easily created at a variety of levels that can then be used by different teachers who are all working with the same student. The rationale for using different levels is that some teachers will have more knowledge than others will and you want to provide just what is needed to keep their motivation level high.

Most computers now come with Power Point available on them. If you are unfamiliar with Power Point there are available tutorials see http://einstein.cs.uri.edu/tutorials/csc101/powerpoint/ppt.html or http://www.unm.edu/~thyrne/olit539/pptutor/pptmenu.html . Power Point also has an audio and video component which fewer teachers are familiar with. If you do not know how to use audio or video with Power Point you should work through additional tutorials. See http://www.lgta.org/ppt4/ or see downloads at http://www.microsoft.com/office/powerpoint/default.htm .

A Power Point presentation can take teachers through a presentation on a teaching technique, method of adaptation, use of an assistive device, etc. using an audio component to provide verbal information. We have all seen these linear presentations. But did you know that you could easily embed slides and discussion within the presentation to allow teachers to go deeper into the material or to learn new terminology if it is needed? This can be done by hyperlinking, which can be explained in the PowerPoint help menu.

Materials which teachers may need to know about included;

- Descriptions of specific disabilities: SERI (http://www.hood.edu/seri/serihome.htm). SERI stands for Special Education Resources on the Internet, Internet Resources for Special Education (http://w3.one.net/~julio_c/), Special Needs Education Network (http://www.schoolnet.ca/sne/), Medweb Disabilities (http://www.ccemory.edu/whscl/medweb.disabled.html)

- Ways to adapt instructional materials: National Center to Improve Practice in Special Education Through Technology, Media and Materials (http://www.edc.org/FSN/NCIP/), Teachers Helping Teachers page (http://www.pacificnet.net/~mandel/specialeducation.html), National Clearinghouse of Rehabilitation Training Materials (http://www.nchrtm.okstate.edu/indextxt.htm).

- Adaptive Instructional Design: Dealing With Under Prepared Learners, Module 17 in Online Teaching: An Instructional Hypertext at http://home.okstate.edu/homepages.nsf/toc/cmltoc http://www.anachem.umu.se/eks/pointers.htm http://www.cabrillo.cc.ca.us/thinking/patterns.html

http://tebbit.eng.umd.edu/simulation/comp.simulation/list_topics.html
http://www.mobileregister.com/education/catchup.htm

- Sites which provide materials that can be used out of level: The World Information Disability site (http://www.dacs.ES .tohoko.acjp/foreign/~wan_res.html)

- Assistive devices: The World Information Disability site (http://www.dacs.ES .tohoko.acjp/foreign/~wan_res.html)

- Remediation techniques for those who have not had previous success: The Disability Link Barn (http://www.spectra.net/~accessun/links.html)

- Groups which will share ideas about teaching http://www.pacificnet.net/~mandel/SpecialEducation.html , http://www.liszt.com/cgi-bin/start.cgi?list=sneteachtalk-l&type=e&info=a&server=listproc@schoolnet.ca

- Groups which will share ideas about working with students with specific needs, NICHCY, the National Information Clearinghouse for Children and Youth, (http://www.kidsource.com/nichcy)

- General teaching approaches which can be used for different learners: The Office of Special Education at the Curry School (http://curry.edschool.virginia.edu/go/specialed/), Internet Resources for Special Educators (http://www.interactive.net/~wader/sped.htm)

- **Assessing and developing prerequisite knowledge**:
  Assessing and Developing Prerequisite Knowledge—Module 36 in Online Teaching: An Instructional Hypertext at http://home.okstate.edu/homepages.nsf/toc/cmltoc
  http://wwwclass.unl.edu/MGMT198D/notebook-sch.html
  http://www.academyonline.com/academy/athens/latin/sample/sample1.htm
  http://pzweb.harvard.edu/Left/PZInfo/Research/Restxt/StuSA.htm

- Sites with motivational strategies http://world.std.com/~lo/96.09/0428.html
  http://www.emich.edu/public/fcie/basicstudies.html
  http://www.uwf.edu/~coehelp/club_id/lesson/motivation/page1.htm
  http://ae3.cen.uiuc.edu/programs/tata/motivation.html http://sparkleinc.com/mlcenter/faq.htm

SUMMARY

In today's academe, one must ask where does learning end and the teaching begin in the dynamic climate of special education. To use an appropriate, if admittedly, over used cliché, we are all in this together. Combining Teachers, Students, and Parents with today's technology, we will take education in America to new, higher plane. With others, who embrace our vision for today's schools, paving the way with already constructed teaching seminars, software based scaffolding plans and computer tools, we will take optimum advantage of the most powerful instrument academia has to offer; no, not the computer, but our own human brain. We can never forget that we have nothing that will take the place of the teacher, not even the "mechanical brain" of the computer. It is only an educational tool, an exacting servant, who will do exactly what we tell it and no more. We are the masters of our fate and that of the children in our charge (exceptional or otherwise), and we will be considered neglect in our duty if we do not exhaust every means possible in preparing our teachers for the "special" challenges (including gifted and talented) which are already in place in our rural schools.

References

We have a site for ACRES 2000 references at http://www>OBRO.com/ACRES/OSU-papers.html

Early Childhood

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A QUALITATIVE STUDY OF THE CHILD, FAMILY AND PROFESSIONAL FACTORS THAT INFLUENCE THE USE OF ASSISTIVE TECHNOLOGY IN EARLY INTERVENTION

The purpose of this study was to explore the individual, system and environmental factors involved in assistive technology use by young children with disabilities through case studies of families who had received intensive training at Camp Gizmo, an assistive technology camp for young children with disabilities, which was co-sponsored by several state agencies. Families, service providers, and preservice students in special education and speech language pathology engaged in a weeklong intensive training in assistive technology while their children participated in camp activities.

Procedures and Methodology

A case study was done with five families who attended camp in July 1997. Four of the children participated in local Early Intervention programs and one attended a preschool class. The group contained four children aged two to three years old and one child aged four years old. Four children had severe physical and mental disabilities and one had Down syndrome.

Each family was assigned a team at camp that consisted of other families, early interventionists, therapists, teachers, and college students. To determine the children's assistive technology needs, the teams observed the children as they tried out various assistive devices. Every family and team at camp documented the observations, kept family diaries, student diaries and developed goals and action plans to use after camp.

Each family participated in a series of interviews: one before camp, one immediately after camp, and a final interview six to eight months later. Each interview consisted of a set of open-ended questions and some probing questions, which focused on camp, assistive technology use before and after camp and the effect of assistive technology use on family life. Each family was observed in the home and at therapy sessions on at least three visits over a period of six months after camp. The children were also observed in their early intervention programs, preschool and daycare.

Data Analysis. In this qualitative case study, data were analyzed according to procedures described by Miles and Huberman (1994). These procedures consisted of coding the information, identifying themes and trends in the data and developing an explanatory framework.

Construct validity was assured through use of multiple sources of evidence (Yin, 1994) from interviews, observations, and review of documentation. Camp Gizmo staff members and parents reviewed the case study reports to verify the information (Mertens & McLaughlin, 1995). Internal validity was strengthened by having someone who was not knowledgeable about the project review the analysis and findings (Mertens & McLaughlin, 1995).

The Smith Family

Family Background. The Smith family consisted of Andy, three years old, and his mother and father, Inez and Tom. Tom worked full time; Inez was the primary caretaker. The Smiths lived in a mobile home in a small town. Andy's cerebral palsy affected his motor skills to a high degree. He was just beginning to say words and was believed to have average intelligence.

Assistive Technology Use Before, During, and After Camp Gizmo. Inez was an avid user of technology. She was disappointed that the camp did not have more equipment to demonstrate because not much was available for Andy to try that he had not tried previously. Andy's assistive technology use increased after camp. He began using an AlphaTalker™, an augmentative communication device, at therapy, but not at home. His mother obtained a computer for him to use through the Family Support Program. He learned to drink out of an adapted cup. He used a gait trainer and a stander at home before and after camp. He was evaluated for a power wheelchair. He continued to wear an ankle foot orthotic.

Opportunities and Barriers to Assistive Technology Use. Andy loved to use technology. Inez was a parent who pushed use of assistive technology, but since Andy loved to use it they worked well together. The environments in which Andy worked and played were technology rich, which gave him ample opportunity to practice skills in a variety of places and situations. Inez was lucky to have an insurance company willing to let her try whatever technology she thought would assist Andy. Some professionals in her life were supportive of assistive technology use: the early interventionist and speech and physical therapists. Although even one of the supportive people, Andy's physical therapist, was only supportive of a portion of what Inez was doing. Other professionals were not supportive of her needs, especially some of the physicians that she encountered.

Effect Of Assistive Technology Use on the Family. The responsibility to take Andy to his therapy sessions fell on Inez since she was his primary caretaker. She was responsible for implementing use of the assistive technology equipment at home. She put him in the stander, gait trainer and on the seating bench each day. When asked about the effect of assistive technology on her family life, Inez said they had a normal family life. She admitted that she was so used to the hectic schedule that it was normal to her. She did become frustrated when she had to fight the equipment to get Andy in it or when she had to move furniture in their mobile home around for the equipment.

The Everest Family

Family Background. The Everest family consisted of Hannah, five years old, her mother and father, Ima and Mark, and two older sisters. They lived in a medium-sized single family dwelling in a city. Mark worked full time as a lawyer; Ima was the full time caretaker of their daughter. Hannah had hypomyelination and translocation of chromosomes 4 and 12 - no known syndrome. She was delayed in all areas of development. She did not speak and had low muscle tone. Hannah attended preschool from 11:30 a.m. to 2:30 p.m. Tuesday through Friday at a school that was not her local school.

Assistive Technology Use Before, During, and After Camp Gizmo. Hannah's action plan primarily consisted of using a simple communication device at home and school. After camp, school staff started using the BIGmack™ with Hannah during circle time and other activities. Ima struggled to get Hannah to use the device at home. She had success after consultation with a private speech therapist, who was working with Hannah on oral stimulation. Ima continued to work with Hannah on the computer with switch access that she had used before camp, but Ima had difficulty keeping Hannah interested. Hannah was fitted with new wheelchair after camp, which improved her seating.

Opportunities and Barriers to Assistive Technology Use. Hannah was inconsistent in her response to assistive technology and rejected many of the toys or devices presented to her. Ima was frustrated by Hannah's lack of progress, but managed to keep focused on her goal of increasing Hannah's independent functioning. Ima was given hope by the private speech therapist, who worked with Hannah on the BIGmack™ as well as on feeding issues. Hannah's environment was rich in technology both at home and school. The technology that Hannah used was well suited to meet her goals. Hannah's new wheelchair helped her sit much straighter. The degree of support from the professionals working with the family varied widely. For instance, her occupational therapist started but did not finish an occupational therapy evaluation that was needed for Hannah's IEP.

Effect of Assistive Technology Use on Family. Ima's schedule with Hannah was busy; she took her to preschool and therapy every day. Ima spent a great deal of time trying to get Hannah to eat. Assistive technology use was secondary to the feeding issue, because a physician at the feeding clinic scared Ima by telling her Hannah could die during feeding.

The Newton Family

Family Background. The Newton family consisted of Matthew, three years old, and his father, Doug. Doug worked full time at a research facility. They lived in a comfortable one-family home in a suburban housing tract. During the day while Doug was at work, Matthew was cared for by one-to-one trainers in the morning, attended school in the afternoon, and went to daycare the rest of the day. Matthew had physical and cognitive delays due to agenesis of the corpus collosum. Matthew also had a cognitive visual impairment that prevented him from processing visual information. Matthew had problems related to feeding; he had reflux and difficulty keeping his food down. Matthew did not communicate verbally.

Assistive Technology Use Before, During and After Camp Gizmo. Before camp, Matthew communicated through crying, groaning and smiling, and other than switch toys, used no technology. After Camp Gizmo, Doug began working with a Say It Play It!™ rocker switch. The rocker switch had two messages that could be accessed by hitting one or the other side of the device. At the final interview, Doug reported, "We've worked with it quite a bit and actually I'm convinced that he does do it." Matthew had a Giraffe Stander™ that Doug obtained through his insurance plan after camp. Doug put him in it for fifteen minutes each day. Finding seating that Matthew could tolerate was a problem. Doug was negotiating with his insurance company to purchase a Snug Seat™ for Matthew.

Opportunities and Barriers to Assistive Technology Use. Matthew was unresponsive to most technology, but Doug was persistent and Matthew eventually did use the Say It Play It!™ rocker switch consistently. Matthew's environment was rich in technology and people willing to use it. Funding for devices was difficult to obtain and Doug had to fight with his insurance company to get the equipment Matthew needed. Matthew had a speech therapist, who was not supportive of assistive technology use. The physical therapist and the occupational therapist were supportive of assistive technology use but came at it from different directions and did not consult with each other.

Effect of Assistive Technology Use on Family. Doug did not think that using assistive technology really had much of an impact on his or Matthew's routines. He felt they incorporated its use into their regular routines.

The Steele Family

Family Background. The Steele family consisted of Anthony, two years old, and his mother and father, who lived in an older but large mobile home in a rural community. His mother, Erica, was Anthony's primary caretaker. After Camp Gizmo, she became pregnant with her second child. Erica's family lived nearby and provided support by helping Erica with transportation to and from therapy sessions and attending the sessions with her. Her grandmother also came to Camp Gizmo for the week. Erica discussed Anthony's disability. "It's still undiagnosed. Anthony has had a lot of health problems related to his disability. He had open-heart surgery two days after he was born to repair the aorta valve. He also had problems related to extra digits on his hands and feet."

Assistive Technology Use Before, During and After Camp Gizmo. Anthony's use of assistive technology decreased after camp. He tried a wheelchair and dynamic stander at camp. His mother borrowed a stander but Anthony would not use it at home. It took seven months for the family to get the wheelchair he was fitted for at camp. By then he had started walking a little bit using a walker, so they did not use the wheelchair much.

Opportunities and Barriers to Assistive Technology Use. Anthony made progress during the year despite poor health and physical problems. Erica worked with him daily on his wedge and bench when he was younger but did not keep it up when he got new equipment. The environment had some of the technology Anthony needed, but they did not have adaptive feeding equipment and the walker he had was not suited for use outdoors. The family did not have insurance and obtained equipment through the West Virginia Children with Special Health Care Needs Program. The professionals who worked with the family were not supportive of assistive technology use. A physical therapist assisted Erica by getting a wheelchair assessment but when the physical therapist left, her replacement did not follow-up on the wheelchair.

Effect of Assistive Technology Use on the Family. Erica had been very supportive and used the equipment with him at home after camp. She indicated at the final interview that she was using the equipment less because of conflicting advice from professionals. For instance, she did not use the stander because the speech pathologist recommended Erica put Anthony down on the floor and let him crawl while the physical therapist said he should walk as much as possible.

The Lemon Family

Family Background. The Lemon family consisted of Ian, two years old, and his mother and father, Helen and Brandon. Brandon worked full time; Helen took care of Ian full-time. They lived on a farm in a small community. Ian had Down syndrome and was delayed in both cognitive and language development. He did not speak but made and imitated sounds. He used ten to fifteen signs regularly. He had some delay in gross and fine motor skills.

Assistive Technology Use Before, During and After Camp Gizmo Except for adapted feeding utensils, Ian used no assistive technology before camp. The issue of augmentative communication came up with Ian at camp because he did not speak. The team tried some devices with Ian and reported that he showed no interest. The team suggested using a Picture Communication Exchange System (PECS) with Ian. Brandon and Helen thought it was a good idea but when they talked to the speech therapist at home, she discouraged them. The Lemons did not pursue it any further. The Lemon family came to Camp Gizmo because they were interested in the computer equipment. They put in their action plan that they would borrow a TouchWindow™ from the Early Childhood Library to use with their computer. When they returned home they were reluctant to borrow the TouchWindow™. Brandon and Helen eventually bought a Barney doll with software to use on the computer. Helen and Brandon chose self-feeding as a goal during camp. They tried some adapted spoons at home but reported that Ian did as well with a regular spoon as with the adapted spoon. He used a regular cup without assistance. Brandon said Ian would scoop with a spoon at school, but at home, Brandon put the food on the spoon and then handed it to him.

Opportunities and Barriers to Assistive Technology Use. Ian was not interested in any of the communication devices presented to him at camp. He was responsive to the computer equipment and used the TouchWindow™ appropriately. Brandon and Helen bought a computer and software to use with Ian, but were not comfortable borrowing the adaptive computer equipment they saw at camp. Adapted feeding utensils were available for Ian to use at his Early Intervention center but not at home. The speech therapist who worked with Ian discouraged the use of the PECS.

Effect of Assistive Technology Use on the Family. Assistive technology did not have much effect on Lemon family routines, since they did not use assistive technology. Helen had a book of pictures and the signs for each picture that she went through with Ian once a day. Brandon also spent time each evening working with Ian on the computer. They used a computer without any adaptations for Ian.

Recommendations

Provide Better Inservice and Preservice Training For Professionals Working With Families of Young Children. Camp Gizmo was one method to address the need for inservice training, but by itself, the camp did not meet the need. Professionals lacked training specific to the children and their home environments. Regional workshops to address the needs of children in their home and school environments were needed after camp. It might also be necessary to find other ways to get information to families and professionals since people in this study found it difficult to take off time from work to attend the camp. Derer, Polsgrove and Rieth (1996) presented a list of recommendations to increase dissemination of information to teachers: a toll-free hotline, an assistive technology newsletter, product reviews, district level specialists, networking at district level, and school level access to computer bulletin boards.

Preservice training is needed in assistive technology. Camp Gizmo was the only course devoted specifically to assistive technology in West Virginia, although the subject is incorporated into other courses. In a survey of teachers by Izen and Brown (1991), the teachers indicated they were not well prepared by their university training program in the area of assistive technology. In a more recent study, over one-half of special education teachers surveyed indicated that they had not been well trained in the area of assistive technology (Heller, Frederick, Dykes, Best and Cohen, 1999).

Provide a Comprehensive, Family Focused, Team Assessment. Camp Gizmo was never intended to be an avenue for assistive technology evaluations, but families desperate to find assistive technology solutions for their children treated it as such. Camp Gizmo could not be a substitute for a comprehensive evaluation, which should be conducted by a transdisciplinary team that includes, professionals, the child, and parents, and occurs in the environment in which the child is going to use the technology.

Provide Follow-up to Assessments. Camp staff needed to follow up with phone calls or visits to see if parents were able to arrange for evaluations by their home transdisiciplinary teams and to get the recommended assistive technology.

Increase Availability of Technology for Parents to Try and Use. Local and regional libraries of assistive technology should be maintained to give parents a local source of equipment to borrow and try out.

Provide Technical Assistance to Families and Professionals Parents and professionals need access to persons with special expertise when trying to set up equipment they have obtained for their children to use. In their study, Hutinger, Johanson and Stoneburner (1996) found a need for technical assistance and troubleshooting. They suggested that early intervention programs hire a technology specialist familiar with the needs of children with disabilities, who would need to get in-depth training on how to integrate the technology into the lives of children. Many assistive technology manuals are written in language that is not understandable to the average person, so providing simplified manuals in necessary.

Improve Transition of Assistive Technology. The families who were transitioning from Early Intervention programs to preschool expressed apprehension over the process. They were concerned that the preschool would not provide the expertise or individual attention their children had received in the past and that the same assistive technology would not be available.

Streamline Funding System to Make It Easier for Parents to Obtain the Technology Their Children Need. Four of the families in this study had difficulty in dealing with funding agencies. There are multiple funding sources for assistive technology, with multiple policies, eligibility criteria and priorities that guide what agencies will and will not fund. Funding agencies need to be made more accountable. Two of the parents in this study reported that assistive technology was delayed due to lost paperwork.

Inform Parents of Their Rights Parents need to be better informed of their legal rights and to have someone to help advocate for them if their rights are violated.

Limitations of Study

Families attended Camp Gizmo because they had an interest in using assistive technology. Besides being highly motivated to use technology, this group was also select in that four of the five families were middle class families who had access to private insurance. These families were able to take a week off from their family life or jobs to come to Camp Gizmo. Thus this group may not be considered representative of the majority of families whose children use assistive technology. The study only included five families, which may not have provided enough interviews or observations.

Summary

Camp Gizmo had little impact on assistive technology use for the five families studied. All the families increased use of assistive technology but other factors also contributed to that use. Those factors were identified by examining the overall opportunities and barriers experienced by the families as they attempted to use assistive technology with their children. Each family had unique experiences, but there were certain opportunities and barriers that cut across the families. The main barriers were in the areas of child, family, environment, technology, and system. The system barriers contributed most to the families not using technology after they left camp. System barriers must be addressed if children are going to have the opportunity to use technology effectively in their everyday lives.

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TEAMING IN RURAL MAINE: EFFECTIVE SERVICES FOR YOUNG CHILDREN AND THEIR FAMILIES

Even under the best of circumstances, collaboration among education and service agencies is fraught with difficulties. Scarce resources and time as well as overworked personnel can stymie the best intentions. In too many cases, collaborative action on behalf of children remains an ideal, not a reality.

Rural Oxford County, Maine, faces numerous obstacles to smooth collaboration between the multiple agencies that serve children. The story of how agencies there are overcoming the barriers of rural isolation, poverty, and low adult verbal skills to operate collaboratively offers lessons to all service professionals.

Oxford County agencies share the ideals held by most professionals who serve children; they have the vision to provide the needed education and social services to children and their families and they want their clients to achieve their full potential. While their goal is straightforward, many factors make it difficult to achieve in Maine and around the country. Although prevention is the least expensive and most efficient response (Chalufour et.al., 1998), most agencies lack the resources for prevention and many agencies operate in a crisis mode. They are often unable to help families secure all the services available or expand or enrich their services. This fragmentation reduces children's needs to rigid and distinct categories, rather than complex, multifaceted characteristics worthy of wholistic treatment. Agencies often compete for the same funds or clients. The end result is that children and families don't receive the best resources and services. Rather than competing for funds, agencies could come together to plan a program that builds on each of their strengths. Such collaboration is the best avenue for achieving continuity of services. While no one school, program, or agency has the mandate or funds to provide for this continuity, they can jointly make it a priority (Chalufour et.al., 1998). A team in Oxford County, Maine has been working to facilitate continuity in their community.

Oxford County, Maine covers 2,078 square miles in western Maine, the country's fifth most rural of the fifty state. The county has no major highways, no public transportation, nor taxi service. Two non-profit transportation companies provide limited bus service to the elderly and low-income persons requiring medical services.

Community Concepts, a multipurpose Community Action Program, includes many of the programs that serve Oxford County's poor children. Of the county's 53,797 population, 21% lived in poverty. Thirty percent of children under five are poor according to Maine Kids Count. Thus, in Oxford County, 260 three- and four-year-olds and 390 birth to two- year-olds live in families whose incomes fall below the poverty level. Community Concepts houses Head Start and began providing Early Head Start services in 1996. The Head Start program is the only comprehensive child development program for low income children in Oxford County. It serves 187 preschoolers in Head Start, and 95 infants/toddlers and pregnant women and their families in Early Head Start. Twenty-four percent of the birth to two year olds living below the poverty level are in Head Start; 72% of the three and four year olds are served by Head Start.

Many of the children served by Community Concepts are further hampered by disabilities. A total of 155 children age birth-5 with disabilities receive early intervention and FAPE (Free Appropriate Public Education) services in Oxford County. Most are three-to five- year-olds (70%); 30 percent are under age three. The children have mild to severe delays in one or more area of development. Head Start Performance Standards mandate that 10% of the enrollment opportunities be made available to children with disabilities. As of March 1999, Community Concepts' Early Head Start program had 11 children with disabilities aged birth to three and 28 children with disabilities aged three to five. Their diagnoses range from speech and language concerns to orthopedic disabilities. The great majority of the disabilities currently and in recent years involves speech and language impairment. This includes not only expressive and receptive disorders, but also articulation problems. Head Start staff and child development professionals consider rural isolation and low adult verbal interaction as the principle reasons for the high rate of language deficiencies. (Community Concepts, 1999). National statistics also report that the great majority of children birth to age five with disabilities are diagnosed with a speech or language delay (U.S. Dept. of Education, 1998).

In 1998 Community Concepts Early Head Start program accepted an opportunity to participate in a four-year training project sponsored by the Conrad Hilton Foundation and the Head Start Bureau. This project brings together teams of professionals and parents from Early Head Start programs to support collaborations between Head Start staff and Part C providers. All serve children with significant disabilities, work with families of children with disabilities, recruit of children with disabilities, and employ commonly used intervention strategies. In the first year of the project Community Concepts staff facilitated the development of a team that included the Early Head Start Disabilities Manager, an Early Head Start Home Visitor, a former Head Start parent, the Part C (Child Development Services) provider, and a local pediatric nurse practitioner. Their multiple steps of team-building, developing a vision and plan, community mapping, and publicity are described below.

The group's first goal was to develop strong relationships. The Hilton/Head Start project designed a yearly Special Quest conference to bring together teams to work on their goals and plan ways to achieve these goals. All members discussed strengths and weaknesses, and participated in several exercises to facilitate exploration and discussion. One team member agreed to take responsibility for keeping the team on track. As the group continued to work, they developed a vision for their community: to improve services to children birth to three years in Oxford County. The team worked together to write goals and objectives for their work together. For example, each member called local service providers so they could compile information for families. At each year's Special Quest conference they plan to revisit these goals, revise them as needed and plan additional goals.

The team's next goal was to complete a community "map"(Fantuzzo, Weiss, & Coolahan, 1998) of services available to children under three and their families. Mapping is a system for compiling information about the community that leads the consumer from one service to the next appropriate service. Consumers are able to locate services more easily. In Oxford County, the mapping has had a big effect on how services are provided in the community. It has led to more cooperative attitudes between service agencies. They are much more likely to refer clients to appropriate services because they know what is available. A smoother process for accessing services now exists, as well as more consistent collaboration between Early Head Start and Child Development Services since there is a team member from each agency. For example, both agencies designed and provided a day of training for the staff of each agency. In addition, the team meetings have been more inclusive between Child Development Services, Early Head Start home visitors and the nurse practitioner. Since agencies know what is available in the community, and who qualifies for the service, children with disabilities and their families are receiving services in a more unified way.

To help families as they search for services and opportunities for their children with disabilities, the team has developed a brochure of available services in the South Paris region of Oxford County. Drawing on the community mapping activity, the brochure highlights medical and health services, and recreational opportunities. The team plans to meet regularly to update the brochure, develop a brochure for the rest of the county, and determine if there are other initiatives that would create opportunities for more collaboration.

This team is unique in its approach to working in a rural setting. The composition of the team represents a broad constituency of service providers who are committed to maintaining the collaboration process. They met monthly to develop the brochure. They will continue to meet quarterly to assess their achievement in meeting their goals, update the brochure, and set new goals.

Other communities can adopt this model of collaboration by following these ten key tips:

- Build people's awareness of the benefits of collaboration; it sets communities into motion.
- Designate one person to represent an agency and make sure that he or she can make a long-term commitment.
- Make sure there is close communication between the designee and the agency decision makers.
- Keep meeting to develop goals; it keeps the collaboration process young.
- Ensure that each team member has a commitment to the team's goals.
- Enlist each team member to take these goals back to the agency for action.
- Include some of the following on the team: a health representative, an Early Head Start teacher/home visitor and administrator, a parent, and a representative from the local Part C provider.
- Agree on a vision before the goals are written.
- Clearly state goals and expected accomplishments.
- Recognize the team's accomplishments to encourage future efforts.
- Meet regularly to celebrate the accomplishments, enhance ongoing activities and establish new tasks.

Community collaboration is recognized as an important ingredient of organizational success. When community agencies and services work together and make better use of their limited resources, children and families can gain access to more streamlined and readily accessible services. The experience of professionals in Oxford County, Maine, allows community partners around the country to raise their expectations for improved collaboration.

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Gifted

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DESIGNING AN ONLINE, INTRODUCTORY GIFTED EDUCATION COURSE

Although many states may have mandates to identify and serve children who are gifted (Stephens & Karnes, 2000), often the teachers who provide such services often are not highly prepared in terms of education and experience. In Oklahoma, there is no mandate for teacher preparation to identify and serve gifted children and youth. This situation leads to undertrained personnel perpetuating the identification and educational services of the 1970s, rather than launching innovative programs. The problem is particularly acute in rural areas where a diverse student population demands the application of recent promising practices investigated though the Jacob Javits Gifted Education funds in the 1990s. A likely response to resolving the personnel preparation issues in gifted education in rural areas is to provide an introductory course that surveys the field of gifted education and includes current theory, research and practices. Courses using innovative technology such as computer mediated learning show promise in reaching such rural areas.

The purpose of this paper is to describe the process and content of such a course. Principles of curriculum differentiation (Tomlinson, 1995) by content, process and product (Maker & Nielson, 1996) are implemented as an example of appropriate strategies for the education of students who have gifts, talents, or high potential. The course development is described according to the philosophy for its instructional design system, the collaborative role of teachers and learners, and the essential components to include for posting the course online. The essential components are presented as those related to the technological process for computer-mediated learning and the content and product of the course.

Philosophy for the Instructional Design System

Learning is an active process. Using the philosophy that learners actively construct their own knowing (Vygotsky, 1978, 1986, 1987), the system for developing an online course must be consistent with the idea of authentic problem solving in learning. Learners are then able to transform information into knowledge. The Framework for Understanding Educational Encounters (Montgomery, 1987) helps articulate three conceptual models of learning. Transmission learning is passive acquisition of information from an instructional source, usually teacher directed. Translation learning is interactive between the teacher and the learner within the content providing challenge to the learner. The third conceptual model is Transformation learning which occurs as knowledge is constructed with and among the learners involved.

Active learning is required if learning is to take place in any of the three conceptual models. Knowledge cannot effectively be acquired solely from an inactive, one dimensional, external source, e.g. through the external presentation of information. Knowing is produced by some action on the part of the learner. Readiness for learning relates to prior knowledge, developmental ability, and motivation. Reality is filtered through the learner's belief system, prior knowledge, experiences, and culture. This filtering forms the basis for interaction with the environment. The pursuit of student questions should be valued highly since these are interests of the learner. The curriculum in such an instructional system contains primary source materials, support, and information to manipulate.

The Instructional System has content to be learned presented from diverse perspectives. The learner has access to multiple modes of representation. The teacher coaches and helps the learner analyze strategies used to learn and to solve problems. When a student makes an error, the information is used as an opportunity to get feedback on the student's learning. Self-evaluation occurs as opportunity for learning how to correct the work emerges and is revealed. When the learner perceives the task as challenging and accomplishable, participation is seen as profitable, important, and interesting. Tasks perceived as too difficult are avoided. Tasks must be accessible to the learners when they are ready to do them and should be designed to invite the students to make decisions (just-in-time learning and problem solving). They are open ended and invitational to stimulate questions. Tasks encourage students to use their own methods to enhance creativity. They have patterns that can be learned and transferred to future tasks with scaffolding. Tasks are authentic and enjoyable, and the developed products have authentic audiences

This design model is holistic and spiral. The learner returns to the content at successively higher levels of understanding and processing in order to create new materials and make decisions based on a variety of perspectives. The learner uses objectives as heuristic design guides, provides multiple layers of objectives, designs content to fill in knowledge gaps, and uses alternative methods of metaphorical thinking. When defining content, the learner uses multiple approaches such as cases, stories, rules, principles, and procedures.

Collaborative Relationship of Teachers and Learners

Learning is a collaborative process by which teachers and students interact, create, and share information. Collaborative groups use combinatorial strategies in problem solving, which facilitates the development of appropriate solutions. Interaction supports question refinement and reflection. It promotes a shared discourse that establishes a learner culture fostering cooperation and mutual interdependence. Since learning is situated in an authentic social process contingent on collective experience, collaboration is necessary. Because the learning task is supportive, challenging, and authentic, students are given an opportunity to tryout ideas from alternative viewpoints and in alternative contexts. In collaborative learning, interaction with peers provides motivation, support, encouragement, and assistance. The exchange of information and the challenges of facts and assumptions are part of this process. Groups confront ineffective strategies and misconceptions, helping individual learners to clarify their thinking. Collaboration shortens the technical learning curve by providing immediate feedback, assisting a learner in the extension of his/ her abilities, supporting the articulation of prior knowledge, and by the monitoring of overall progress (scaffolding: a process whereby experienced learners guide the less experienced in a learning conversation) (Vygotsky, 1978). Learning then becomes transformative, changing the knowledge structure of the learner to a higher level of performance. This empowers the learner and provides agency in the setting of project goals. The teacher's role is to coach, facilitate, support, and implement authentic product development processes.

A collaborative learning community has the following salient characteristics:

- shared vision and outcomes,
- an open, trusting, and caring culture,
- procedures for acknowledging members (both learners and instructors) participation and contributions to the community,
- supportive structures and policies to implement vision and facilitate change,
- a flexible design for change and for implementing research-based innovations,
- procedures for continual evaluation and assessment of success and failure,
- shared leadership and shared responsibility among all community members,
- opportunities for sustained professional development and collaborative reflective practice,
- time for members to work together to support each other and to facilitate change and learning,
- community procedures which allow for knowledgeable participation and conflict resolution,

- cross-gender, cross-cultural and cross-generational dialogue,
- authentic partnerships that expand the community and increase all members opportunities for learning,
- opportunities for learners to construct learning and to take responsibility for their own learning,
- motivational processes that help promote lifelong learning, and
- practices that are aligned to the community's core philosophy (Cooper & Boyd, 1996).

Components of an Online Course

An online course is an opportunity for distance learners to participate in course work that is more than just an electronic textbook. Computer mediated learning opens multiple pathways to an expanded universe through in depth exploration of content and ideas. CML offers multiple pathways of asynchronous learning based on the personalized needs and interests of the learner. Computer mediated learning can easily be nested in the Framework for Understanding Educational Encounters (Montgomery, 1987). Direct transmission of knowledge through the use of the text, *Talented Children and Adults* (Piirto, 1999), is only one avenue used in the course. Another pathway, the translation of knowledge, is incorporated when teachers and learners interact on established content by investigating hypertexts and links to the World Wide Web. Transformation occurs when knowledge is constructed by and among the learners involved, extending their appropriation and expanding their perspective. This universe of learning and knowledge is co-constructed by a community of learners based on multiple modes of representation of content to match each learner's unique level of experience and expertise.

The first step in construction of the online course is the development of the syllabus. An online syllabus resembles the traditional course syllabus, but includes links to other course components: threaded discussion and product databases, homepages, gifted resources, help desk information and library information. Table 1 contains excerpts from the online syllabus for the Introduction to Gifted course.

Table 1. Syllabus and Course Outline Excerpts

Information About this Course--Catalogue Description: Concepts, techniques, and strategies for providing differentiated educational programs and experiences for the gifted and talented. State and Federal legislation, development of gifts and talents, program types, identification systems, program development, materials development, teaching techniques, and methodologies.

Prerequisite and Support Courses: Prerequisites none. It is assume that most will have a background in education, however this is not necessary. Parents are welcomed and supported. Some basic familiarity with computers is assumed. You should be able to use a browser and to access this syllabus electronically.

How to use this Syllabus: Read the whole syllabus carefully. All of the information needed for this course (except the textbook) is included in the syllabus or in the pages linked to the syllabus. This includes all of the readings for the course. This material may be read online or downloaded and printed

Course Outline/Description: The focus will be collaborative. This implies that you will work with others critiquing their products and helping them build better materials. In this generation or cohort, you will develop materials that will be made available for future cohorts of students. The process to be developed is one of application in authentic situations. The focus is on the development of solutions to authentic problems encountered in working with gifted and talented learners.

Course Structure: This is an online computer mediated learning experience. You can logon at anytime and participate in the activities. When you read the textbook material, please take notes on any area that you do not understand or would like to discuss further. Discussion questions will be provided for each chapter. Respond to the questions that you choose (following the directions on the threaded database) and to the responses that your classmates make. If you have additional questions, you can post them for your classmates to answer in the threaded discussion. The instructor will respond to any unanswered questions and to student answers if alternative interpretations might be useful.

Using the Discussion Questions: The purposes of the discussion questions are (1) to highlight important materials in the text and to aid in the formulation of a stance on these issues, (2) to further the understanding of differentiated education, and (3) to aid in the familiarization of techniques, strategies, models and research in the field of gifted education. The point of the discussion questions is to provide discourse with others in the class. Questions are viewed as the singularly most effective manner in promoting knowledge acquisition (Shriever, 1991). Questions will be focused and open-ended (questions that have no predetermined right answer and cannot be answered with a yes or no). Questions will require the use of information from the text and will require proof of reasoning. A variety of ideas and interaction between students will be sought. Clarification and extension will be asked as needed.

Additional Syllabus Components: The syllabus contains the following headings:

- Title and What's New Page,
- How to Use this Syllabus,
- Textbook description, links to sign up for the course, instructor with bibliography/vita, teaching assistant, electronic office hours, and telephone numbers,
- Course goals and expected outcomes,
- Examinations and major assignment,
- Discussion questions, responses to peer responses, independent products, response to peer products, final projects, response to final projects,
- Grading scale, policy on incomplete grades, attendance policy, make up policy, add/drop policy, policy on withdrawals, statement on academic integrity, disabled student policy, statement to cover possible changes in the syllabus,
- Links to other places, how to use the Internet, hardware/software requirements, directions for email, help desk, class listserv, net etiquette,
- Guest presenters/volunteers, reading topics (Bull, Montgomery, & Kimball, 2000).

The next step involves the development of a threaded discussion database for asynchronous interactivity. Threaded discussion involves two or more learners interacting at different times through the use of threaded discussion databases, listserves, bulletin boards, etc. Learners may interact using email. This type of reflective approach enhances the learning experience. Learners have time to explore complex issues, consider alternatives, and craft responses. Asynchronous learning is convenient and adaptable.

Following the development of the threaded discussion database, is the creation of a product database. A multitude of authentic products and projects may be created as part of the course requirements. These products may then be posted on the database for review and use by fellow learners. The creation of authentic products facilitates motivation among gifted learners. Authentic products demonstrate the relevance of new leaning by creating materials for future use in classroom instruction. Products and projects might included the following:

- a program (computer or teaching), electronic reserves, a bookmark list, a web search, web quests, a class web page, or a web conference,
- real world examples, archives, glossaries, indexes, or a class reference collection,
- subject guides, primers, collections of solved problems, or group portfolios
- electronic journals, special interest groups, a class news group, and/or focus group to gather information,
- tutor programs, dialectical inquiry, or writing assistance labs,
- documents, searchable reference library, national electronic library, or annotated bibliography,
- prioritized list and timelines,
- a Delphi process, an interpersonal exchange (pen pal), or learning circles,
- journals and diaries, tutorials, (synchronous & asynchronous),
- a virtual tour, simulations, games, databases, or a synchronous panel discussion, role-play, debate, a structured controversy, or virtual field experience.

Materials like those above can be located for gifted students on the Internet and are described in Bull and Kimball (1999).

Others steps might include establishing a multigenerational archive. In this manner class participants aid in the creation of resources for future learners. Examples created by students are more on the level of new learners than teacher examples. If information for a class is collected and maintained in an electronic archive, each successive class or generation can build upon that foundation. After several generations, learners should be able to go farther and learn more. Generational curricula form a database that illustrates the development of communal knowledge. Collaborators may have no knowledge of one another, but may use each other's work to develop new perspectives. A persistent medium is required to store the positive aspects developed out of intergenerational practices for subsequent generations (James, 1997). Some types of generational strategies are annotating with hyperlinks, electronic coaching, creating cognitive maps, and critiquing of documents.

An especially important step is the creation of the homepage/s, the central nervous system of the online course. It is a basic site with links to all other components. An example of a course homepage can be found in instructional materials for the internet (Bull, 2000).

Conclusion

In conclusion, the promotion of promising practices in gifted education are extended through the use of computer mediated learning. Current theory, research, strategies, and techniques are now available to educators of gifted learners in rural areas. The Framework for the Understanding of Educational Encounters (Montgomery, 1987) provides a clear philosophical base for teachers to develop gifted programs that reflect the needs of their school or school district. Computer mediated learning provides access to multiple modes of content representation and is designed to be holistic, spiral, and readily available. An authentic learning experience is made available by providing a collaborative medium that can be shared by teacher and learners from the comfort of their own homes or offices. Teachers now have access to knowledge that will pave the way for innovative practices, the differentiation of curriculum (Tomlinson, 1995) and appropriate strategies for the education of students who have gifts, talents, or high potential. These teachers will claim ownership to the tools that will democratize education for these learners.

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RURAL GIFTED EDUCATION: ENHANCING SERVICE DELIVERY

Abstract

Rural schools have limited students, personnel, and resources. Devising appropriate service delivery for individuals and groups of students who are gifted, securing suitably qualified teachers, and developing appropriate programs is never an easy task. These challenges become even more problematic for educators in rural communities than in more populous areas. While it is necessary to recognize characteristics of rural communities that can serve as barriers to gifted education, it is more productive to find ways to turn these characteristics into strengths. Popular program models and strategies can be modified to fit the unique needs and character of specific schools and communities. Flexibility and working together can improve education for all learners.

Rural Gifted Education: Enhancing Service Delivery

> *"Giftedness is a greater awareness, a greater sensitivity, and greater ability to understand and transform perceptions into intellectual and emotional experiences" (Roeper, 1982, cited in Silverman, 1993, p. 3).*

Learners who are gifted *are* different from more typical learners as Annemarie Roeper has pointed out. To provide a quality education that will prepare *all* children to be happy and productive citizens, *including those who are gifted*, educators need to be accepting of individual differences and teach keeping those different learning requirements in mind. This goal is not easy in our highly diverse classrooms; however, flexible thinking can make it possible.

The task is simultaneously more difficult and easier in rural classrooms. Let us first look at three of the common barriers that can inhibit appropriate services for gifted learners. *1) Limited numbers.* Typical programming options for learners who are gifted (Borland, 1989; Clark, 1997) are often not feasible in rural areas where the number of students needing differentiation is very small. Rural schools may have only a few students per grade, which requires a different approach to class organization (Spicker, 1991). Some schools may have less than a dozen children in K-8 with the high school children boarding in a town hours away. *2) Limited resources.* There may be few trained educators, each of whom must frequently carry multiple responsibilities. In some schools, one teacher may be responsible for all the math, science and social studies classes, or the principal may teach several classes as well as handle administrative duties. It is difficult to be highly prepared in each area, particularly at the level needed by learners who are gifted (Spicker, Southern, & Davis, 1987). Advanced classes for teachers as well as students are more difficult to obtain in rural areas, usually requiring driving great distances or using some variation of long distance or web-based learning. Physical resources are limited by the smaller tax base, including buildings, books, computer hardware and software, and science labs within the school, and the support systems in the community (Spicker, 1991). *3) Adherence to tradition.* For good or ill, the country, the whole world, is changing more rapidly than ever before. In rural areas traditional values remain largely intact and a limited acceptance of diversity in the family and community continues. While this can be a source of strength, it can seriously hinder the recognition that some students need a differentiated education. Occasions for children and youth to explore beyond the traditional curriculum are limited. Educational experiences and careers that are either nontraditional or outside the community are frequently not seen as feasible either by the students or the adults. Such opportunities may even be considered unwarranted special privileges (Jones & Southern, 1992).

Rural schools have advantages too, many coming from the very characteristics that can create problems. *1) Limited numbers.* Small schools and classes mean that teachers often know all the students and their families, making it easier to cross-age group students by allaying potential fears of exposure to older children and facilitating monitoring. Fewer students per teacher makes individualization for any student easier. Identification of unique needs can be simplified by the low numbers and greater knowledge of the students. *2) Limited resources.* People in rural areas are frequently accustomed to being self-sufficient and adapting what they have to meet their needs precisely because resources are limited. This ability to make creative use of resources can be turned to adapting traditional strategies and resources for teaching gifted learners to meet local needs. *3) Adherence to traditions.* Shared values and sense of community can be channeled to offer the safe environment that is so necessary for gifted learners to blossom. It is traditional for community members to work together to solve a problem, complete a task, meet a need. This atmosphere of cooperation is often carried over into the schools. When advanced education for a bright child is seen as an important need not only for the child but the community, sharing resources to provide advanced education is more likely (Spicker et al., 1987).

Characteristic Needs of Gifted Learners

Gifted and talented children have cognitive and affective characteristics that set them apart from their more typical classmates. Like all children, they will more readily grow to be happy and productive adults when they are provided with an education that takes into consideration their unique learning needs (Clark, 1997). The regular classroom is considered the least restrictive environment for students with disabilities because nondisabled learners are educated there (Hallahan & Kaufmann, 2000). For children who learn at an accelerated pace, thrive on complex content, retain learned material easily, use stored knowledge logically, and who frequently already know the lesson, the regular classroom and the regular curriculum can be seriously restrictive because their needs are *not* typical (Clark, 1997). Not only do they have advanced cognitive skills and needs, they also differ affectively.

> To the uninformed, giftedness may seem a sort of special privilege, but to the gifted individual, often it feels like a distinct disadvantage. It is painful to be different in a society that derides differences. Pain may also come from internal sources-from a finely tuned psychological structure that experiences all of life more intensely. Giftedness has an emotional as well as a cognitive substructure: cognitive complexity gives rise to emotional depth. Thus, gifted children not only *think* differently from their peers, they also feel differently. (Silverman, 1993, p.3)

Developing a Systematic Plan

Program models and strategies of instruction that work in large communities may not be effective or even possible in small schools (Pitts, 1986; Van Ert & Wolf, 1996). Nevertheless, the planning process is still the same even if the methods of service delivery differ. As Borland (1989) points out, systematic planning is needed to develop a coherent set of services. Initial planning includes: 1) appointing a committee to oversee the development of a program of services, 2) determining what if any provisions for gifted learners are currently available, and 3) conducting a needs assessment to determine how many children would benefit from differentiation in specific subjects, and what resources are available.

From this data the committee should begin designing the basic components of a gifted program so that they are compatible with the needs of the school and community: 1) Develop a definition that encompasses the major areas identified by the needs assessment; 2) Write a philosophy or mission statement with supporting rational for providing gifted services; and 3) Devise an identification process that is broad enough to locate as many students as possible that would profit from differentiated instruction while not being prohibitively expensive in time and resources (Borland, 1989), keeping in mind the ethnic and economic composition of the community. So far being a small, rural school or consortium of schools offers more advantage than handicap by allowing less formal collection of information than in larger communities and with a quantity of data that is easier to manage.

Identification can be an especially delicate topic is small towns. Procedures need to be written and open to the public, including a policy for handling grievances. A blind review based on multiple criteria and conducted by a committee is recommended to avoid hard feelings and even a hint of favoritism (Pitts, 1986). Misinformation and misunderstanding about gifted programs and identification procedures are common problems in any community if care is not taken to ensure open communication (Borland, 1989). The problems are magnified in small communities where citizens have known each other for years, and often for generations. Methods used for identification should take into consideration the differences in background between rural and urban communities and employ more nontraditional assessments. (See Spicker et al. (1987) for specific suggestions.)

Devising a defensible curriculum for learners who are gifted and practical methods to deliver the instruction are rarely easy. Models that work for large school districts appear overwhelming and out of place when applied to a handful of children scattered over wide distances in communities of one or two hundred or even a few thousand. Again, the components of program planning are the same as for larger communities; flexibility is the key to successful implementation. The committee needs to design a program that includes the following: 1) goals to be achieved; 2) one or more program models to provide a framework; and 3) a selection of methods for service delivery. Goals need to reflect the students' ability to learn at a rapid pace knowledge, concepts, and skills beyond what is typically expected of students by the end of high school. Challenge and rigor need to be embedded in each goal so that real learning takes place and the students learn *how* to learn. No model of instruction should be implemented without some modification since all schools and communities differ to some extent. Combining pieces from several models is an effective way to meet local requirements (Borland, 1989).

Grouping and Service Delivery Methods for Rural Settings

The family-like atmosphere often found in small rural schools (Spicker, 1991) can be a support when creating the differentiated instruction required by gifted learners to reach their potential. Typical grouping options include: individualized instruction, regular classroom, within class grouping, cluster grouping, cross-age grouping, subject grouping, resource room, special class, special school (Borland, 1989). Some of these groupings immediately lend themselves to small schools, such as 1) individualized instruction either within or outside of regular classes; 2) cluster grouping in schools with more than one section of a grade; 3) cross-age grouping over two or more grades in full-time classes, such as a cluster of gifted learners in a subject or class, or in a pull-out resource room. With the exception of individualization, these methods permit gifted learners to have time with their intellectual peers, a strategy that is highly recommended for meeting both cognitive and affective needs (Clark, 1997; Davis & Rimm, 1998; Gallagher & Gallagher, 1994).

The next component is deciding on program options based on whether they enrich, accelerate, or group by ability. Clark (1997) points out that none of these administrative arrangements should be considered as the sole programming option for gifted learners; each meets different cognitive and affective needs. *Enrichment options* include curriculum compacting, independent study, use of contracts to organize individualized instruction, tiered assignments, learning centers, computer-based instruction, mini units on student interest, problem-based learning units, instruction based on Junior Great Books, academic competitions, mentorships and internships, Saturday and summer programs, correspondence courses, and international experiences (Davis & Rimm, 1998). Individual need and age help determine which choices are most appropriate. The above enrichment options can be implemented with relative ease in any size school. Acceleration should also be available for some students. *Acceleration options* include: early admission to kindergarten or first grade, middle school, high school, or college; subject skipping; grade skipping; credit by examination for any grade or for college classes; advanced placement courses; college courses in high school; dual enrollment in high school and college; telecourses; correspondence courses; and talent searches (Davis & Rimm, 1998). Achieving a flexible program that incorporates selected enrichment and accelerative option can be easier to manage with just a few students than in large schools. Ability grouping, however, can be much more of a challenge when there are few students to group. Cross-age grouping combined with cluster grouping can be employed in selected subjects to facilitate enrichment and/or acceleration. When assigning students to small groups, teachers need to place gifted learners together the majority of the time so they will be challenged to learn at a high level rather than acting as tutors (Clark, 1997).

Being flexible and designing the services to take advantage of local strengths will be more effective than trying to emulate large districts (Bull, 1987).

Curriculum Development

Differentiating the regular curriculum is a necessity for learners who are gifted. The challenge is not only to develop quality services, it is also to combat disbelief that some children can and should learn more than others. As Thomas Jefferson so aptly stated, "There is nothing so unequal as the equal treatment of unequals" (Clark, 1997, p. 4). Gifted learners also require a special education to develop their full potential.

A scope and sequence is critical for coherent and coordinated curriculum development. The scope is the depth and breadth of the knowledge, concepts, and skills be taught. The sequence lays out the order and specific years the information will be introduced, practiced, and mastered.
Van Tassel-Baska (1994) recommends the following guidelines for developing a defensible sequence:

1. Limited review of prior material learned.
2. Progressive development in skill acquisition.
3. Logical ordering of courses based on the underlying organization of the discipline of study.
4. Concern for progressive development of concepts.
5. Increasing complexity in product demands rather than increasing quantity.
6. Flexibility regarding entry and exit points based on age/grade-level. (pp. 75-76)

Some of her suggestions are easier to implement than others, and therefore, are good places to begin.

Final Components of a Systematic Plan

Program evaluation is also necessary to ensure quality services that remain sensitive to student needs (Borland, 1989). While this is often the most intimidating and overlooked part of program design, it is potentially easier to envision and monitor in small schools simply because of size. A comprehensive program cannot be developed overnight; it is a process that takes place over many years and is enhanced by frequent evaluation and careful revision (Borland, 1989). Therefore school officials can feel relieved of the pressure to design and develop the "perfect plan." Program evaluation should be viewed as an opportunity to gather data in order to make effective decisions as to which components of the current program work and what changes and additions should be incorporated. It is the mechanism that allows refinement.

A process for building administrative and community support should be included so that once services are initiated they will be maintained. Effective methods include creating a strategic plan, providing regular and coherent teacher preparation (Borland, 1989), and organizing a schedule of public relations that targets the various populations internal and external to the school (Karnes & Lewis, 1997; Lewis & Karnes, in press). Because gifted learners are capable of comprehending, using, and retaining greater quantities of knowledge, concepts, and skills at a more complex level than typical learners during the same instructional time (Van Tassel-Baska, 1994), a flexible program of services is essential. Such individualization will take the cooperation of teachers, principals, parents, and community members. Administrative support from the superintendent and school board are vital for success so that the fear of elitism does not deprive students of specialized instruction and opportunities to use their talents because their strengths are intellectual, academic, or artistic rather than athletic (see The Paluzzi Ploy in Gallagher & Gallagher, 1994, pp. 91-92).

When beginning a new program, it makes sense to start small and add additional services as success enhances community support (Pitts, 1986). An effective way to gather this support is to describe the characteristics and needs of gifted learners and provide examples of how meeting their educational needs will benefit the community (Lewis & Karnes, in press). Jones and Southern (1992) found that teacher and coordinator training was effective in changing negative attitudes towards serving gifted learners. Videotapes enable some of the biggest and best-known authorities in gifted education to share their expertise at training sessions for educators (Karnes & Lewis, 1996) and community gatherings of all kinds. These videotapes can be borrowed from the library of a nearby university either directly or through interlibrary loan.

Small schools and communities *can* provide high quality education for all their children, including those who are gifted. Networking with other educators through college and university classes, professional organizations, conferences, and over the Internet helps break down the barriers of distance and isolation. Teachers, principals, counselors, parents, and even the students themselves need to work together with community leaders to create unique and satisfying educational opportunities. Working together - that sounds like a traditional rural approach to meeting local needs.

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Multicultural

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CONSENSUS & CONFLICT AMONG TEACHERS IN RELATION TO MULTICULTURAL SPECIAL EDUCATIONAL NEEDS IN THE SOUTHWEST

INTRODUCTION:

Analysis of Project BESTT's program evaluation was intended to measure the effectiveness of this three-year U.S. Department of Education-funded graduate training program (Project BESTT: A training model for rural multicultural, bilingual special education). A component of the program evaluation consisted of 12 attitudinal questions designed to measure teacher perceptions of the nature and extent of services within the public school system, in the rural southwest, relevant to the special educational needs of ethnic minorities within the school district (Mexican-American, Mexican and American Indian children and youth). Toward this end, a "pre" and "post" administration of a Howard University modified questionnaire was administered to both the experimental group (the teachers involved in Project BESTT) and a control group (non-participating teachers from the four school districts involved in the training program). The experimental pre-group had 30 participants while the post-group involved the 25 original participants who completed the program. The control pre-group consisted a randomly selected sample of 67 teachers while the control post-group had 96 non-participating teachers from the participating school districts. The data analysis indicates significant pre-test difference between the experimental and control samples on three questions while the comparative post-test analysis indicates four significant disputes. The pre- and post-analysis differences involve different questions indicating that while the originally three areas of difference may have been resolved, the program may have served to raise more questions than it resolved. Intra-sample comparisons indicated differences in two areas for the experimental group across time while there were no significant differences registered overtime within the pre- and post-control sample. These attitudinal differences will be discussed relevant to both the effectiveness of Project BESTT and the larger issue of "support for" and "resistance against" bilingual, multicultural special education.

RESEARCH OBJECTIVES:

a. Explore teacher attitudes relevant to bilingual, multicultural rural special education needs.

b. Provide a viable assessment methodology for other school districts to utilize relevant to program reviews.

c. Discuss the specific challenges facing rural, border school districts in light of the marked changes brought about by NAFTA.

RESEARCH SETTING:

The southwest border area has a unique focus in that it is clearly tri-ethnic with the dominant Anglo influence, the historical Mexican-American/Mestizo tradition and the influx of Mexican and other Hispanics attracted to this area due to the enticements offered by NAFTA. These factors are especially challenging to the public schools serving the border area -- the area of our study.

RESEARCH FINDINGS:

Project BESTT pre/post assessment questions, Chi Square analysis.

1. Mexican American students are slower than other students.

No significant differences were noted between the pretest experimental and control samples or with the posttest experimental and control samples.

2. American Indian students are slower learners than other students.

No significant difference between the pretest experimental and control samples or with the posttest experimental and control samples were noted.

3.* I get frustrated working with students who do not speak English well.

No significant differences was noted between the pretest experimental and control samples but a significance at the .05 level was noted between the posttest experimental and control samples with the control agreeing more with this statement.

4.**. Students with physical or learning disabilities impede the motivation and achievement of other students without these "handicapping" conditions.

Significance was noted at the .01 level between the pretest experimental and control samples with the control group agreeing more with this statement. Significant differences at the .01 level was also noted in the posttest experimental and control sample comparisons again with the control group agreeing more with the statement.

5. Students with physical or leaning disabilities who are from minority backgrounds, especially those where a language other than English is spoken, are more prone toward failure than students who do not share these characteristics.

No significant differences between the pretest experimental and control samples or the posttest experimental and control samples were noted.

6.* I often feel that I am doing bilingual, special education students a disservice due to my lack of training in this field.

No significant differences was noted between the pretest experimental and control samples. Statistical significance was noted at the .01 level was noted between the posttest experimental and control samples with the control group agreeing more to this statement.

7. My school district has a viable plan of action for serving handicapped students.

No significant differences between the pretest experimental and control samples or the posttest experimental and control samples were noted.

8.* My school district has a viable plan of action for serving handicapped students who come from families where a language other than, or in addition to, English is spoken.

No significant difference was note between the pretest experimental and control samples. However, a significant difference at the .05 level was noted between the posttest experimental and control samples with the control sample agreeing more to this statement.

9. My community is knowledgeable of and responsive to the needs of handicapped individuals.

No significant differences between the pretest experimental samples or between the posttest experimental and control samples were noted.

10.* My community is knowledgeable of and responsive to the needs of handicapped minority individuals who speak a language other than, or in addition to, English.

A significant different at the .05 level was noted between the pretest experimental and control samples with the control sample agreeing more to this statement. No such difference was indicated in the posttest experimental and control samples.

11.* Our school's IEP process takes into account the special needs of bilingual, special educational students.

A significant difference at the .05 level was noted between the pretest experimental and control samples with the control sample agreeing more to this statement. No such difference existed between the posttest experimental and control samples.

12. In our school, the curricular is sufficiently modified to accommodate the special needs of bilingual, special educational students.

No significant differences between the pretest experimental and control samples and the posttest experimental and control samples were noted.

The data indicates that the Project BESTT (experimental sample) teachers had a greater awareness of multicultural bilingual special educational issues than those teachers in their district (control sample). Dissemination of information between the Project BESTT teachers and the other teachers was also indicator in those item where statistical significant differences were noted in the pretest but not in the posttest. Clearly, this assessment not only identified critical factors in multicultural bilingual special education, it showed the effectiveness of the programs training.

SUMMARY:

The need for empirical research on teacher perceptions was made evident by French and Rodriguez in their recent article. Here they noted that school violence has emerged as a critical issue in the U.S. today. While the focus was traditionally on urban schools and gangs, recent shootings in suburban and rural schools, including a school involved in the Project BESTT program (Deming School District), has brought attention to non-urban school settings. This is a study of a rural, multicultural state with a high at-risk youth population. New Mexico has the highest Hispanic population (38%) as well as a high American Indian representation (22 Different tribes). Ranking high in youth violence, substance abuse, poverty, teen pregnancies, and with a significant school drop-out rate, a multicultural intervention effort is needed to combat these ills. Clearly, special education faculty will need to play a significant role in this endeavor (French & Rodriguez, 1998). A recent study by the state-wide newspaper, *The Albuquerque Journal,* noted that Hispanic boys in the state represents the groups at greatest at-risk (Smallwood, 2000). The challenge of maintaining quality teachers and programs is part of the current national debate on education. New Mexico is deeply involved in this debate ranking low in support for students while at the same time attempting to further cut support to public education through the Governor's "school voucher" program (Vargas. L.A., Koss-Chioino, J. D., 1992).

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DISTANCE LEARNING ON AMERICAN INDIAN RESERVATIONS

Teacher training programs for teachers who teach children on American Indian Reservations are rare. Many times, this is due to the rural location of the teachers who are teaching on the reservations. The teachers, who are teaching on the reservations, are many times American Indians themselves and have returned to the reservation after completing their undergraduate teaching degree. Due to their rural and most likely isolated location and their cultural ties to the community, continuing education for these teachers does not occur. The only way that these teachers could continue their education would be for them to return back to an urban area where a teacher training facility exists. Because of their strong tie to their community, a second move from their community to further their education is not desired. Thus, many teachers on reservations have minimal training to deal with a very complicated student population.

Distance learning would appear to be the most sensible way in which to train teachers who are American Indians working on reservations. However, many cultural attributes of this population makes teaching through distance learning very difficult and perhaps more difficult than with other populations (Spooner, Spooner & Algozzine 1998).

The cultural characteristics of an American Indian are subtle and are difficult to distinguish (Indian Nations at Risk Task Force, 1991). American Indian cultural characteristics that hinder their ability to succeed through distance learning include: lack of question asking for concept clarification at appropriate times; attending mannerisms are often neutral with little expression thus providing limited feedback to instructors; limited ability to complete assignments in a timely manner as their lives exist in a time-free environment; difficulty maintaining strict time schedules for attending broadcasts; and difficulty performing tasks which require them to have some level of competition amongst fellow tribal members (Wenzlaff & Thrond 1995; Tijerina & Biemer 1987).

Asking questions for most American Indian populations is not a valued characteristic (Wright & Tierney 1991). When questions are asked, it generally is after a speaker has delivered their entire set of information and when adequate time has lapsed for the receiver of the information to digest the information. Distance learning broadcasts many times ends before this period of time has taken place. Thus, the learner does not have the opportunity to reflect on what has been taught.

Instructors who are doing broadcasts require feedback from their audience. This is especially true if the transmission is a two way interactive broadcast. American Indian cultural style frequently dictates that when a person is being spoken to, they are to not interrupt. Instead they are to listen intently without necessarily looking at the speaker. Additionally, they should provide little expression while integrating information being taught to them (Herbert, Mayhew & Sebastian, 1997). This means that the interaction from the student to the instructor is very limited and many times the instructor may misinterpret the reaction of the students.

The cultural characteristics of individuals on a reservation typically emanate an attitude that time is a fluid concept. Strict time demands are not adhered to. Fellow tribal members would not be supportive to another individual who is pressed by a time factor (Tijerina & Biemer, 1987). A graduate student living on a reservation would not be viewed positively if they were to turn away a visitor to merely complete an assignment for class.

Finally, the way in which a graduate student's skills are assessed would look very different from other students. Since the culture dictates that competition is not valued, performing better or worse than a tribal peer is tabooed (Indian Nations at Risk Task Force 1991). Traditional assessment methods could not be implemented with these students. This poses problems when universities are broadcasting to several communities. Consistency of assessment procedures would be hard to maintain.

Recently, the University of Texas-El Paso attempted a distance-learning program with Apache students in the southwest. Cultural climates of the reservation made the distance learning approach very difficult. These difficulties were noted for both instructor and students. When the delivery of instruction was changed to on-site instruction, student success changed dramatically. On-site instruction was provided on weekends, which allowed students the time to process information and discuss this with the instructor. Group assignments were provided with group assessment of the assignment. Timelines for class meeting times were broad and allowed students to arrive for class on a more flexible schedule. Instructors noted that the students became very interested in the course content and became motivated to complete assignments. The students appreciated the individualized instruction provided to them that matched their community and educational environments.

If distance learning is going to be used with the American Indian population, certain distinctions must be made to accommodate the cultural mores of the community. Current broadcast systems need to have flexible time schedules, instructors need to be trained to educate the American Indian student in a culturally sensitive manner. Instructors need to utilize methods of group assignments as these students benefit from the peer collaboration.

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HISPANIC DEAF STUDENTS IN RURAL EDUCATION SETTINGS: COMPLEX ISSUES

This presentation provides an overview of the issues surrounding Hispanic students who are deaf and/or hard of hearing in rural educational settings. While the needs of Hispanic students who are deaf/hard of hearing are not limited to the rural setting, the number of students and resources available in a rural setting demand a different approach to assessment and instruction.

Demographic Changes in Hispanic Populations

The number of minority students in public schools documents the rapidly changing population of the United States. MacNeil (1990) has reported "Anglo" students now constitute the minority in several states, with other states close behind. The Hispanic population is the largest and fastest growing (Figueroa, Fradd & Correa, 1989). The term "Hispanic" has arisen in the literature in the past few years, but may still be misunderstood by the general population. The United States Bureau of Census has defined a Hispanic individual as an individual of Spanish background. However, Hispanics can come from any race. Individuals who are Asian, white, or black can all be Hispanics if their language background is Spanish... To say that Hispanics have one culture would be a simplification of that definition because Hispanics encompass a variety of cultures, just as they come from a variety of races. Hispanics then, is a broad term used for convenience to identify individuals who come from Spanish heritage and may or may not use Spanish as the language of the home (Kayser, 1998, p. 157).

Following the national demographic shift, proportionately, the number of Hispanic students who are deaf or hard of hearing is also increasing (Walker-Vann, 1998). This fact may be alarming when one notes the research that has shown these students have disproportionately greater amounts of difficulty in school (Bennett, 1988).

The Deaf Hispanic Child

The Deaf Hispanic child is a student who is choosing a language and a culture with which to identify. Is this child Deaf first and Hispanic second? Or is the child Hispanic first and Deaf second? These questions require a careful consideration when working with families of students who are both Hispanic and also Deaf/hard of hearing.

It has been argued that "double minority students may face double prejudice in education" (Lane, Hoffmeister & Bahan, 1996, p. 164). It has also been shown that "Deaf children from non-English speaking families are three to four times more likely to be labeled learning disabled, mentally retarded or emotionally disturbed" (Lane et al., 1996, p. 164). Research has demonstrated Hispanic deaf/hard of hearing students generally have achieved lower academic success than their hearing or deaf peers. Additionally, "they are more likely to drop out of high school or to be tracked into vocational rather than academic programs. Those who finish high school are less likely to go on to college" (Lane et al., 1996, p. 164). The drop out rate of students who are both Hispanic and Deaf is thirty-six percent (Lane et al., 1996).

Language Options

Of the many factors that may influence the education of a student who is deaf/hard of hearing, none is so critical as language. As a group, "Hispanic Deaf children are less likely than white Deaf children to have a sign language used at home. Therefore, they have less opportunities for communication" (Lane et al., 1996, p. 164). The Hispanic deaf/hard of hearing student and her family is ultimately involved in several language choices and options, both expressively and receptively. The choice of the family or the student may not be at all what the school expects.

The Hispanic deaf/hard of hearing student has several language options from which to choose, both oral and signed. She may use spoken Spanish or spoken English, signed language, including American Sign Language (ASL), Signed English systems, or sign language from the student's native country. Additionally, a student may have minimal formal language skills (Lane et al., 1996) or use an invented system of home signs. Lane et al., described home signs as "gestural communication" (1996, p. 39). They continued, "the functional use of home gestures can range from simple pointing at objects and acting out messages, to a repertoire of agreed-upon gestures that convey a much more extensive range of communication" (Lane et al., 1996, p. 41). The use of each of these language options, individually and in combination with one another, must be carefully documented and explored in order to determine which language the student prefers to use, and where the student's language competencies are found. Schools should not assume that a particular language or system is being used by the Hispanic deaf/hard of hearing student, but rather the student may be using a variety of options to communicate, depending on the context, content, and environment.

The family and school of a Hispanic student who is deaf/hard of hearing must decide which, if any of the languages available to the student is the primary and preferred mode of communication. Schools' views of hard of hearing and profoundly deaf children from linguistically diverse families may be oversimplified. Schools may expect the hard of hearing child to speak the home language to some extent. In-school assessments may not reveal the extent of the child's knowledge of that language. Previous studies have indicated that deaf and hard of hearing children may in fact not demonstrate any knowledge of the home language in the school environment, where only sign language and English are used (Gernar de Garcia, 1995).

Cultural Considerations

In addition to language choice, schools and individuals who work with students who are Hispanic and deaf/hard of hearing must also consider cultural and linguistic variations among the students with whom they work. School professionals need to be knowledgeable and sensitive to language dialects, family and religious beliefs, family values, and immigrant status. It is important to remember that "like any other group of people, Hispanics have various ideas, values, and beliefs that may be different from those of others sharing the culture. Diversity is the most common shared attribute" (Gonzalez Alvarez, 1998, p. 73). One of the most important considerations school professionals should remember is that not all Spanish is the same. Idioms, vocabulary, and dialects vary from country to country and within countries.

Hispanics are family-oriented. Households often consist of immediate and extended family members because "staying together and helping each other are two very important values" (Gonzalez Alvarez, 1998, p. 74). Traditionally, in Hispanic cultures, mothers are the main caregivers and fathers are the primary providers and decision makers of the family.

Religion is another important cultural characteristic of many Hispanic families. While religion is practiced daily, many Hispanic families turn to their religion and their church in moments of crisis. Religious beliefs have greatly influenced Hispanic's attitudes toward children with disabilities (Gonzalez Alvarez, 1998). It has been demonstrated that there are generally two points of views that are believed about children with disabilities. "In the first view, a child with a disability is seen as a punishment or curse" (Gonzalez Alvarez, 1998, p. 74). For example, the child's disability is a punishment for something someone in the family did wrong. In the second view, the family "believe(s) that there is a purpose for their child's disability" (Gonzalez Alvarez, 1998, p. 74). Understanding the view the parents and family have, of a student with a hearing loss, will assist in understanding the role of the family in the educational process and how to encourage the family to support the student's education.

Educational Concerns and Recommendations

In order to accurately assess the language(s) the Hispanic deaf/hard of hearing student is using and to determine the most appropriate academic placement, schools need to establish evaluation/assessment teams. Ideally each member of the team would be fluent in Spanish and culturally knowledgeable. Table 1 outlines some important members of the evaluation team.

Table 1: Evaluation team members
Immediate and extended family members
Audiologist
Speech-Language Pathologist
ESL/Bilingual Teacher
Teacher of the Deaf/Hard of Hearing
General Educator
Sign Language Interpreter
Spanish Interpreter
Paraprofessionals

Family members should feel comfortable to participate as team members. However, this relationship may not happen naturally and therefore must be nurtured by school professionals. Many Hispanic families "regard professionals as the experts, the ones who have all the knowledge" (Gonzalez Alvarez, 1998, p. 76). Families may rely on school professionals for advice and to make decisions regarding placement and individual educational (IEP) goals. School professionals need to encourage families to participate by inviting them to share their thoughts and feelings and by assuring them that the teacher/professional will not be offended or hurt if the family disagrees with the schools thoughts, ideas, or recommendations. Additionally, school personal should provide support to the family by validating what the family is doing and by recognizing their individual needs.

School personal can foster this partnership/relationship if they are accessible to the family and flexible with traditional ideas and school procedures. It is also important to remember that relationships are built on trust and communication. If a parent or family member has no way to contact a teacher or other school professional because of language differences, there will be no communication. Identifying a specific person as the contact for a family will help to prevent communication barriers and breakdowns. If school professionals are unable to communicate with the family interpreters should be used to facilitate communication. Interpreters must be familiar with specific terminology surrounding issues of hearing loss and education, as well as the individual language preference(s) of the families of children with hearing loss.

Evaluation of the student requires each member of the team to be aware of the student's and family's strengths and areas of concern. It is critical to remember that school-based assessments will likely yield limited results. Members of the team should be careful that tests are appropriate for the language(s) of the student. Additionally team members should keep in mind that "Deaf students are seriously disadvantaged in psychological and achievement testing because of the English-language and cultural bias of the tests; Hispanic Deaf students are doubly disadvantaged" (Lane et al., p. 164).

Evaluation teams need to be equipped to conduct comprehensive assessments of the Hispanic student who is deaf/hard of hearing in order to determine the most appropriate placement for the student and to ensure scholastic and social success for the student and her family (Christensen & Delgado, 1993; Fletcher-Carter & Paez, 1997; Rodriguez & Santiviago, 1991). A comprehensive, naturalistic assessment will provide school personal with a wealth of knowledge about the individual student. A person who has knowledge in each of the languages involved is integral to the assessment. However these individuals are not always readily available in rural areas. For this reason, rural school districts should work together to create a team of professionals who are knowledgeable in the areas of deafness and bilingual education to administer the comprehensive assessment. Observations, interviews, language samples, anecdotal records, appropriate psychological evaluations, audiological evaluations, and academic evaluations should be collected and used to determine the most appropriate placement for the Hispanic deaf/hard of hearing student.

A variety of factors will influence the academic placement of the Hispanic deaf/hard of hearing student. Degree of hearing loss, knowledge and use of spoken or signed languages, appropriate peers, and teaching expertise will greatly influence the team's decision for academic placement and social support. Individual rural districts may not be equipped to provide the most appropriate educational option for the student. When possible, school districts may try to work together to provide the most beneficial academic and social environment for the student.

Conclusion

This presentation has provided an overview of the issues surrounding Hispanic students who are deaf/hard of hearing. Research has demonstrated Hispanic deaf/hard of hearing students generally have lower academic success than their hearing or deaf peers. Of the various unique characteristics of Hispanic deaf/hard of hearing students, the most prominent is language option and choice. Evaluation teams must collect sufficient data to demonstrate the student's language preference and use to insure learning in the school environment. School districts may decide to pool resources to establish a regional assessment team to determine the academic and social needs of each individual Hispanic deaf/hard of hearing student. Furthermore, school districts may develop regional learning centers to provide quality instruction and support to Hispanic deaf/hard of hearing students and their families.

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INCREASING SERVICES TO CHILDREN WHO ARE DEAFBLIND IN SOUTHEAST ARKANSAS: A STRATEGIC MODEL FOR IDENTIFYING CULTURAL INFLUENCES

ABSTRACT: This presentation addresses the problem of under-representation of children with deafblindness in the southeast quadrant of Arkansas. An investigation of the unique cultural characteristics of the region, conducted as a collaborative effort with the University of Arkansas at Little Rock and the Arkansas State Department of Education, revealed more effective identification and service strategies for families from diverse backgrounds. The process by which entry was gained to families in this region is presented in hopes of encouraging other program personnel to examine and revise current methods/materials for early intervention based on cultural insights.

Introduction to the population

Defining the general population of children who are deafblind is a complex task and requires an understanding of dual sensory impairment as a singular condition characterized by profound communication, concept development and orientation and mobility needs (McInnis, 1993). McInnis and Treffrey (1982) proposed that deafblindness presents a condition of composite disabilities in which "the deafblind child is not a blind child who can not hear, nor a deaf child who can not see" (p. iv). These children may exhibit extreme difficulties establishing interpersonal relationships, have a distorted perception of their world, and may lack the ability to interact with their environment in a meaningful way. This separation, or distance, of a child from the environment presents the unique early intervention requirements that are crucial to connecting these children to the world around them. Included in this population may be those children who are recognized as "at risk" for developing dual sensory impairments, especially those with particular syndromes and/or very low birth weights. The U.S. Department of Education defined deafblindness as:

> concomitant hearing and visual impairments, the combination of which causes such severe communication and other developmental and educational needs that they cannot be accommodated in special education programs solely for children with deafness or children with blindness (Federal Register, 1999, p. 12422).

Individual states were required to adopt definitions of deafblindness that were consistent with the federal regulations; however, they were allowed flexibility in regard to terminology. The Arkansas Project for Children with Deafblindness specified these potential characteristics of this population:

1. a diagnosis of a degenerative disease that will affect both vision and hearing, such as Usher syndrome or CHARGE association
2. multiple disabilities due to generalized CNS dysfunction resulting in inconsistent responses to visual and auditory (functionally deafblind)
3. an additional learning and/or language disability (Census Information form, Arkansas State Department of Education, Special Education)

Based on the federal and state definitions, the Arkansas State Department of Education, Project for Children with Deafblindness, annually conducts the mandatory federal census of children birth to age 22. The 1999 census identified 121 children in this category. A seven-county section of southeast Arkansas, which included the Mississippi River delta region, was the most under-represented area of the state with no children who are deafblind being identified in the 1998 or 1999 census efforts. These statistics caused the Arkansas State Department of Education (SDE) to establish an objective for its current grant cycle (Oct. 1, 1999-Sept. 30, 2003) that targeted the under-represented and under-served southern quadrant of the state. Speculation about the cause of under-representation led to a consideration of child find practices that more effectively reflected the unique cultural characteristics of this part of the state. For this purpose, a Community and University Partnership Grant was awarded by the University of Arkansas at Little Rock to determine if, and to what degree, the culture of the region may have contributed to the reporting deficit. If culture was discovered to be a contributing factor, public awareness and child find efforts would become more culturally responsive to families of the region.

Project Purpose and Procedure

The long-term goal of this project was to verify or adjust the cultural perceptions of the seven counties in the region and apply the information to early intervention practices for children who are deafblind. This strategic model followed this sequence: (a) target a central county for exploration, (b) verify information by triangulation methods, (c) modify child-find materials that reflect culture sensitivity, (d) change the approach to families, and (e) enhance personnel preparation that respond to diversity that is location-specific. If the model resulted in increased identification and service to this population of children, it would be used in other "pockets" of the state that are under-represented.

The underlying assumption was that children with dual sensory impairments exist in these areas, but were not being reported to the state agency responsible for providing specialized services. The research question was "What cultural influences of this rural region might impact the way families identify a child's needs and access services?" Due to the low incidence of deafblindness and the heterogeneous nature of the population (Chen & Haney, 1995), regarding these influences in child find efforts and intervention was a primary concern for state and national projects designed to service this population.

Project Development

Focus group interviews were utilized to obtain opinions and feedback on cultural issues from residents of Drew County, the centrally located county in this region. The purpose of the groups was to elicit responses of participants that reflected perceptions and emotions about personal and group culture that might not emerge in other forms of interviewing (Krueger, 1994). According to researchers with extensive experience using focus groups, this approach to qualitative research stimulates participants to state feelings and beliefs that they would not likely be expressed in a written survey or individual interview (Gall, Borg, & Gall, 1996). Thus, the group dynamics contributed to the responses obtained in the focus group session.

In a project planning meeting, the Advisory Council to the Arkansas SDE's Project for Children with Deafblindness discussed the perplexing under-representation of children who are deafblind in southeast Arkansas. The possible reasons that families and professionals fail to identify concurrent sensory impairments and/or receive early intervention services were of major concern. It was suspected that the unique cultural characteristics of the region prevent parents from identifying and receiving services for their children. The council determined that identifying specific cultural characteristics of the region, whether related to ethnicity, religion, or rural nature, was the first step toward modifying current methods of identification and intervention that reflect a family's cultural values.

A plan to investigate this question of cultural influence was constructed and three focus group sessions were organized in Drew County. Researchers have recommended that at least two focus groups are needed to fully understand the topic. The number may need to be adjusted based on the information gained in the previous groups (Vaughn, Schumm, and Sinagub, 1996). According to Krueger (1994), "several focus groups are often needed to gain a sense of how the questions are working, if they need to be revised, and the degree of convergence or divergence of the participants' comments" (p. 144). Krueger (1994) emphasized the importance of the researcher concentrating on the purpose of the study during the planning phase and considering those who will use the information at the study's conclusion; in this case, the "users" of the information referred to the Arkansas SDE. The Advisory Council worked in small groups to discuss the best methods for gaining entry into the communities where sensitivity to cultural diversity is paramount. It was recommended that those who would be conducting the focus groups contact a local, well-respected and trusted professional or clergy to seek suggestions for potential group participants. The support and trust of a local person was necessary to lay the foundation of trust on which this project would progress.

Sample groups of participants for the first two groups were selected by the Drew County Department of Human Services (DHS) County Administrator and a University of Arkansas - Monticello faculty member. Their recommendations for potential participants were based on the following criteria: (a) long-term residency in Drew County, (b) professional and personal involvement with families, and (c) interest in a culturally sensitive approach to serving families in Drew County. Each potential participant was contacted initially by telephone and subsequently faxed or mailed a copy of a consent form, which provided a more comprehensive overview of the project. Individuals were asked to read about the study prior to the follow-up call within a few days to determine interest in participating in the study. Upon confirming interest, formal invitations were mailed and follow up telephone calls made to confirm attendance.

Organization of the focus group meetings included scheduling a time and place that was convenient to local participants. Monticello, approximately two hours from centrally located Little Rock, was selected as a convenient location. The Drew County DHS Administration offered the use of its conference room, which was a familiar location for most participants. The agenda slated two hours for the group meetings, including an incentive luncheon catered by a locally owned business.

Focus Group Meetings

Transportation was arranged for persons without means of attending the meetings. According to guidelines set forth for successful meetings of this type, seven to ten participants were recruited for each session (Krueger, 1994). Participation in each of the first two sessions was considerably lower than expected, averaging about 50% of those who had confirmed; however, valuable insights were obtained, and the notion that small groups afford more opportunity to share ideas was verified (Krueger, 1994). For example, when discussing the various cultures and the characteristics of those cultures represented in Drew County, a recurring response was related to the sense of pride in the region. Participants in both groups reiterated this pride, each adding a personal example of what if means to feel proud and protective of territory and heritage. The emphasis in the groups, composed of African-American and Caucasian professional women and mothers, was not placed on racial boundaries and conflicts, but on the indigenous pride of the people, regardless of ethnicity. This common perception of what made them unique motivated group members to speak freely within the group about the sensitive issues of childrearing practice and treatment of children with disabilities.

A Moderator (principal investigator of the project), Co-moderator (Educational Consultant for the SDE Deafblind Project), and respondents attended the focus group sessions. The meetings were conducted around a large table with a microphone in the center for recording responses. Although the Moderator made brief notes during the sessions, it was the responsibility of the Co-moderator to take extensive field notes of key points and notable quotes. The following vignette provides an example of "probing" for details:

Moderator: What are the various cultures represented in Drew County?

Respondent: There is a growing Hispanic population in the region. There is also a culture of just being from southeast Arkansas.

Probe #1: What does "culture of southeast Arkansas" mean?

Respondent: It's typically Southern here. There is a pride in the southeast. In fact, we have a saying, "You don't step on southeast Arkansas."

Probe #2: Can you identify specific characteristics of this pride that would help me understand the people of this area better?

Respondent: This is our home. You can't come from somewhere else and take over here. If you are not from Drew County, it's like you are an outsider. We are cohesive and we don't trust outsiders.

Although questions were prepared (see Table 1 for sample questions), the natural expansion provided by probing encouraged participants to divulge more specific information. After the first two focus group meetings, questions were evaluated for appropriateness. Because the participants in these groups were primarily professionals, with the exception of two parents, the questions were deemed applicable to the study and comfortable for participants to answer. The questions planned for the third group, conducted in the neighborhood environment, targeted personal culture rather than large group culture and how it affects daily living with children in disadvantaged situations.

Table 1

Sample focus group questions

1. What are the various cultures represented in Drew County?
2. What are some characteristics of these cultures?
3. What different views about a child who is disabled may be related to culture?
4. What cultural factors of the region might be interfering with parents seeking assistance or acknowledging that the child is deafblind?
5. What are cultural practices within the community associated with childrearing?
6. What do you see is the role of the extended family?
7. What are barriers to someone from another culture working with families?
8. How can a service provider earn the trust of the family?
9. How can the people who provide services to children overcome cultural barriers?
10. How can churches and organizations help identify children with deafblindness?
11. When have you felt someone could have been more sensitive to your culture?
12. What advise would you give about the way we work with families?

The third focus group session followed a different format than the first two groups and targeted a neighborhood that survives below the poverty level. The results of the previous groups emphasized that transportation is a problem for these families, thus it was decided that a third group should be conducted in a way that allows easy access to parents. The Parent Coordinator for the Monticello School District, who provides volunteer homework assistance after school in this housing project, acted as liaison to this group of parents and organized a unique meeting. The district provided a school bus for the meeting to take place in "safe territory"... inside the bus. Recognizing that trust is vital to obtaining information, this approach was much more beneficial than attempting to meet in a conference room in a professional building.

Upon completion of the Drew County focus group interviews to obtain an ethnographic profile of the area, a multi-method strategy, or "triangulation" attempt, was made to verify the data and enhance the validity of the findings (Suter, 1998). To corroborate responses obtained during group sessions, follow-up letters were sent to persons who were confirmed to attend meetings but were unable to do so. They were asked to respond to a Likert-scale series of statements that checked their level of agreement about cultural values determined in the focus groups. For example, a question asked during the focus groups was, "What do you see as the role of the extended family?" A recurring response related to the role of the maternal grandmother. A corresponding statement to verify the response read "Maternal grandmothers are influential to families within my culture." Those who participated in the meetings also were asked to verify the statements for accuracy (from "strongly agree" to "strongly disagree") and discuss the issues with family and friends for additional opinions. A potential method for expanding the pool of respondents on these cultural questions would be to submit the statements to DHS County

Administrators in the surrounding counties. Results of the focus groups and triangulation efforts were analyzed to detect recurring themes, patterns or explanations for the reasons that parents, caregivers, and professionals in contact with these families fail to identify and receive subsequent early intervention for children who have dual sensory impairments.

Project Outcome

The networks that were established incidentally throughout the course of the project will remain intact and functioning, maintaining clear lines of communication between agencies, service providers, and parents. As the project continues to investigate cultural influences, the information obtained may result in several systemic changes, beginning with the Arkansas SDE's child-find methods and materials. Ongoing changes include informational materials development (i.e. brochures, public service announcements, posters) that address the characteristics identified as unique to Drew County residents. The annual Federal Deafblind Census conducted in March/April, 2000 and subsequent years will be the primary determinant of the project's effectiveness, thus deciding how the model's expansion might assist other areas of the state with similar problems of identification and service provision.

Using Cultural Information for System Change

Since ethnic minority groups compose a significant portion of rural populations and those in low socioeconomic categories (Helge, 1991; McLoyd, 1991), it is imperative that service providers explore cultural characteristics within a family. As a caution, it is valuable to remember that all families within a given culture are not the same and that cultural attributes vary from family to family (Turnbull & Turnbull, 1995). Traditions and values that are family-specific can not be generalized to other families within the larger culture. The isolation of rural cultures may result in sub-cultures and individual family cultures contributing more to the dynamics of the family than the larger cultural group (Helge, 1991). This project has confirmed that families were more affected by the economics of the rural culture than by the racial differences within the community. The participants in this research project emphasized that fierce pride in their community contributed to resistance to "outsiders" working with their children. They preferred that professionals show personal interest in families without meddling in private affairs when establishing the parent-professional team relationship.

Assimilating basic cultural information, such as acquired during this project, has been determined to facilitate communication, aid in establishing a working relationship with the family, and help the service provider develop a respect for the perceptions and values of the family unit. The process by which a practitioner (a) obtains the knowledge base, (b) discovers an individual family's degree of acculturation, (c) discusses differences with the family, and (d) adapts programming according to the value system of the family is the foundation of building effective parent-professional intervention (Kalyanpur & Harry, 1999), and is referred to as establishing a "posture of cultural reciprocity" (p.115). The procedures followed during the course of this project reinforced the investigator's understanding of minor cultural differences that affect how families respond to professionals. An openness to these differences proved to be the most valuable tool for developing trust with the participants.

When defining cultural characteristics, caution against stereotyping and perpetuating "culture-biased thinking" should be exercised at all cost (Turnbull & Turnbull, 1997). Lieberman (1989) emphasized the importance for the service provider to consider subsets and individual perceptions within the culture, in addition to understanding general characteristics of a specific culture. It should also be noted that a myopic attentiveness or single-minded focus on cultural differences might make it more difficult to locate the similarities between people. Analyzing one's own cultural perspective in the pursuit of self-awareness and subsequently communicating openly about culture-specific information has been determined to facilitate the formation of working relationships that might otherwise have been strained due to value differences (Chen, Brecken, & Chan, 1997). The process by which one becomes culturally sensitive will be ongoing throughout the course of service to the family.

Remembering that all families have strengths, and capitalizing on these strengths when developing programs, is the best way to ensure an effective collaboration between professionals and families.

Conclusion

Short-term results of this project included the immediate revision in child-find efforts that considered the responses obtained in focus group activities. Informational materials were developed that considered basic values of the region, such as emphasizing the pride demonstrated in southeast Arkansas. Posters and brochures now feature pictures that reflect ethnic diversity, a simple but important consideration in the development of training curricula, informational mediums, and teaching materials used with children. Communication networks were established through this project that assist with the location of children with deafblindness. Isolation of resources and lack of communication between agencies was discovered to be a problem in remote areas of the state and efforts to improve the situation were implemented. Collaboration, the emphasis of this grant project, will be maintained long after the grant support is expired. The long-term results of the project will be application to other pockets of rural Arkansas that are under-represented on the deafblind census and envelop other cultures not heavily represented in southeast Arkansas.

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TAKING A LEADERSHIP ROLE IN ENSURING A CULTURALLY AND LINGUISTICALLY APPROPRIATE SPECIAL EDUCATION IN THE LEAST RESTRICTIVE ENVIRONMENT, AS MANDATED BY IDEA 1997.

This poster presentation will focus on informing Latino individuals with disabilities and their families of the importance of ensuring that their culture and language are taken into consideration when addressing Special Education issues and processes. In addition, a brief overview of the Individuals with Disabilities Education Act of 1997 will be presented so as to have the audience understand the many rights that students with disabilities have under this law. NCLD will stress the importance of appropriate evaluations, IEP placements, transition services, assessments, etc... Parent leadership and advocacy in their child's education will be the driving focus of this poster presentation.

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Audrelia Dugi
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TRANSITION OF NAVAJO SPECIAL EDUCATION STUDENTS IN A RURAL ENVIRONMENT

Introduction

The transition of rural high school students involves a challenging process. The success of completing post secondary vocational training is dependent upon several factors. Such factors include age, parental involvement, and availability of programs. The transition of the special education student is further impacted by their culture.

We believe the Kayenta Unified School District (KUSD) transition program serves as a model for other school districts wishing to provide a similar program that will promote the retention of culture and language in an educational setting. The senior transition class entails a year long course that focuses on the application process for services from the Navajo Nation, Office of Special Education and Vocational Rehabilitation Services, in Kayenta, AZ. The Office of Vocational Rehabilitation places students in vocational training schools including job placement based on the results of an extensive interest inventory. Vocational Rehabilitation also provides financial assistance for housing and monthly stipends. The KUSD and community have taken a leadership role in incorporating the philosophy of the Navajo (or Diné, as the Navajo refer to themselves), into the KUSD Transition Program. Within the KUSD, a strong emphasis is placed on family, school and community collaboration. Students, parents, teachers and community members are committed to transitioning special needs students from high school into post-secondary education, the workplace, and the community. The Kayenta Unified School District, located in Kayenta, Arizona, is the research site of this informal investigation.

Kayenta is located on the Diné Reservation, which covers 24,000 square miles and is equivalent to the size of the state of West Virginia. Parts of the Diné Nation are located in Arizona, New Mexico, and Utah. The Diné inhabit the largest reservation in the United States. However, only approximately 160,000 people live in this extremely rural area. Kayenta is one of the largest communities on the reservation and it is where the Kayenta Unified School District is located. The population of Kayenta is approximately 5,000. It is not uncommon for some students attending KUSD schools to travel on the bus two hours, one-way.

From 1998-1999, the enrollment for the KUSD was 2,565 students. There are four schools within in the KUSD System. The KUSD Primary school houses grades K-2, the Intermediate school houses grades 3-5, the Middle school houses grades 6-8, and Monument Valley High School houses grades 9- 12. Two hundred and twenty-three students are enrolled in special education programs in the KUSD, one hundred and one of these are located at the high school.

Ten percent of the KUSD student population receives special education services. Diné is the principal language. At the Primary and Intermediate schools there is at least one bilingual class for each grade. After grade 5, English becomes the primary language of instruction via primarily ESL certified teachers.

Purpose

The purpose of this paper is to inform interested individuals about the Kayenta Unified District's transition program which helps prepare Diné youth for post-secondary opportunities within their own communities and outside the reservation. Diné Special Education personnel describe their transition program and its emphasis on retaining Diné culture and language. Successful case studies of students' transition out of rural special education programs and into the workplace are discussed.

More specifically, information is provided regarding the following:

- The transition program at KUSD
- District and local resources
- The number of students who have successfully transitioned from high school from 1997-1998
- Increased need for parental involvement
- Navajo expectations in adulthood
- Navajo traditional work ethic, values, morals, social skills, communication, and community involvement
- Confidence in beliefs surrounding ones traditional self and family.

Methodology

Information for this paper was obtained through review of KUSD documents, interviews with four special education employees who worked closely with the transition program and four former students. We examined records from the Office of Special Education and Vocational Rehabilitation Services at Kayenta. Furthermore, the authors have drawn on their personal experience working with students transitioning into the community and/or higher education. Interviews regarding cultural expectations of adults within the Navajo community have also taken place. To give readers an idea of the types of students who have been enrolled in this program, we have included three case studies, one per year since the graduating class of 1997.

Questionnaire and Interview Results of Four Students

1) How were your parents involved in school?

Of the interviewees, two had parents heavily involved, and two had little involvement in school in which case the students signed their own IEP paperwork.

2) Did you attend a vocational school or have any kind of training after high school?

Two replied, yes, and two replied, no. Those who answered "No" are preparing for placement in a vocational training program.

3) If yes, did you need certification for the job or area you work in?

The students who attended a vocational school indicated yes.

4) If yes, what kind of certification did you receive?

They received certification after nine months of training as a medical assistant and in eight different kinds of welding (e.g., pipe). The other two are currently seeking certification.

5) Do you currently work at a job that requires these skills?

Two students were gainfully employed. One returned to Phoenix for job placement. One student has been employed since graduation.

6) What agencies did you go through to get information about vocational schools and special training and certification?

All students indicated participation in their senior transition class trip to Phoenix, AZ. This includes attending workshops about various vocational training schools including Life Development Institute (LDI) and Maricopa Skills Center. The students independently processed their own applications after graduation with the Navajo Nation Office of Special Education and Vocational Rehabilitation.

7) How did you incorporate your traditional beliefs in your education?

The students continued to practice their cultural beliefs regardless of where they were. One student did not attend her graduation of vocational training because of a ceremony. One student traveled home most weekends to participate in and contribute to family activities (i.e. raise the sheep). One student missed many days of school because of family obligations/chores.

Case Studies

These cases are included to assist the reader in contextualizing the transition programs in the KUSD.

1997

Joe (not real name), was 19 years of age at the time of this interview. He graduated from the Monument Valley High School special education program in May 1997. He had an identified disability of mild mental retardation (MIMR). Joe had many behavior problems during the four years of his high school career. He was verbally abusive (e.g., use of inappropriate language toward his peers and teachers). Joe's behaviors impacted his education so that his least restrictive environment was recommended to be in a self-contained classroom. Joe's academic curriculum emphasized training in developing and generalizing independent living skills.

Joe's parents were moderately supportive of the many behavior intervention plans implemented with Joe for his behavior problems. The parents usually came in for requested meetings. The father agreed to the behavior modification program of using positive reinforcers for demonstrations of appropriate behaviors at specific time intervals.

It was not uncommon for Joe to hit and take things from his peers. For the safety of others, it was necessary to have constant supervision. One thing that was very helpful to Joe in terms of making smoother transitions between activities was keeping a personal schedule of daily activities. This technique minimized his rebellion against instructional activities. Joe was also recommended for individual counseling but noncompliance made that intervention difficult.

Joe was connected with Navajo Nation Office of Special Education and Vocational Rehabilitation Services during his senior year in high school. His application packet was completed with his father's cooperation. His father brought in the required documents to complete his application packet. He was also very much interested in Joe attaining employment after his high school graduation.

Joe kept his appointments with Vocational Rehabilitation Services and was accepted to the Life Development Institute in Phoenix, Arizona. He completed the program, which entailed learning to live independently. He then started further vocational training in the area of auto body in basic refinishing and metal repair. Unfortunately, he did not complete this program. He reported that he was employed at the Phoenix

International airport as security personnel for two months while studying at the Maricopa Skills Center. Joe also reported that being away from home was difficult because he lost contact with his family on the reservation. Joe stated that his parents could not visit him as they had no reliable transportation to visit him in Phoenix. He also indicated that his finances were restricted as he received a small stipend on a monthly basis, which he reports to have been just enough to cover his immediate expenses. When asked in an interview whether he had expected this type of a budget, Joe stated that he was familiar with budgeting his money from his senior transition class in high school.

Joe is currently staying home with his family on the Navajo reservation. He is unsure of how well he will do if he should attempt another program off the reservation. He reports he is comfortable helping his family with the care of the family livestock at home for now. Vocational Rehabilitation Services has made appointments with Joe to do a follow up with him and possibly assist him in continuing and completing his program. When Joe was given information about the Office of Vocational Rehabilitation's attempts to assist him, he reported that he was doubtful of his success.

1998

Billy (not his real name), an 18-year-old male student, graduated from high school in May 1998. He was identified as having a learning disability (LD) as a result of processing deficits. This student took many of the courses offered by the Monument Valley High School Special Education program with an emphasis on basic academic areas. Billy had many reports of behavior problems particularly during his senior year. His behavior problems ranged from stealing compact disc players and compact discs from his peers, to keeping a set of master school district keys over a period of time. His academic performance warranted a C average on a daily basis. He was generally compliant and respectful toward adults. There were some reports of Billy engaging in inappropriate sexual activities during school hours. Billy's level of academic performance was approximately at the 5th grade level. His behaviors interrupted his attendance as he was placed on home instruction for one academic semester. He was quite skilled in some vocational areas involving building homes. One project that Billy completed during his home instruction placement included documenting his daily activities and building an addition to his mother's home. His work was particularly impressive as he made cost estimates of building materials (using the most current newspaper flyers) and compared them with the actual cost of materials.

Often Billy's mother and sister came in for parent conferences (his sister acting as an interpreter). His mother maintained a traditional Navajo lifestyle including raising livestock for a living. Billy's older sister completed two years of college. The mother expected Billy to find employment after high school graduation. She also had anticipated that he would be married soon after graduation (Billy was already living with a partner at the time of his enrollment).

During the month of April, a month before graduation, Billy participated in the annual senior trip to Phoenix Metropolitan area. He visited several vocational training schools where he received information about various certification programs. The senior transition class also assisted Billy in applying to the Office of Special Education and Vocational Rehabilitation in Kayenta.

After graduation, Billy applied for a welding certification program in Phoenix, Arizona. In an interview, Billy indicated that his senior transition program was important in preparing him for independent living. His transition classroom curricula included learning to interpret his pay stubs, keeping a bank account, balancing a budget, and reading bus route information. Billy reports that this was helpful to him in adjusting to life in the city. He stated that he was afraid of living in the city in the beginning because the environment was different from the quiet reservation life. He is now certified in eight areas of welding and supports his girlfriend and new daughter. Billy reported that his sister was very supportive of his education as she visited him in Phoenix and provided transportation home almost every weekend. Billy is pleased that the vocational training program emphasized hands-on learning opportunities rather than the textbook approach. He reports that he was able to maintain contact with this family through weekend visits and through traditional family obligations.

1999

Zeek (not real name) was in the special education program in his school district since third grade. He was identified as a student with learning disability. By his senior year in high school, Zeek's academic level of performance was at approximately the second grade level. He often did not complete his daily assignments. Certain days, Zeek was very motivated and tried his best to remain focused on the task at hand. Most school days, Zeek did not pay attention to the classroom activities. One of Zeek's strengths included regular attendance. Zeek enjoyed wiping down his classroom desktops, windows, and chairs. He told his senior transition class teacher that his post-secondary plans included becoming a gainfully employed custodian.

Zeek did not have a strong support system at home. Often he did not have homework completed and parents did not attend many Limited English Proficiency meetings. Zeek followed a group of peers who were caught for truancy and illegal possession of drugs at school. Zeek had been caught for suspicion of illegal drugs at school as well. The teachers were frustrated with Zeek who laughed at behavioral correction. He would acknowledge his inappropriate behavior then get caught for ditching class five minutes later. There were questions of his ability to make cause and effect connections.

Zeek's senior transition class walked him through the application process for Vocational Rehabilitation training. The course also allowed him to explore various employment options. With this information, Zeek completed his application and is anticipating placement at North American Technical College in Phoenix, Arizona. He will be entering a nine-month certification program for carpentry. His parents remained uninvolved in the application process.

Results 1997

Monument Valley High School Special Education Department graduated 14 students with varying disabilities. Seven students were male and seven were female. Ten of the students were LD, two were MR and two were MIMR. After graduation, four students completed some type of post-secondary vocational training; two were male and two were female. Of the four students trained, the areas of training included auto body in basic refinishing, metal repair and carpentry. According to the Navajo Nation Office of Special Education and Vocational Rehabilitation Center, there is documentation that the two female students have completed training.

1998

Ten students have graduated from Monument Valley High School Special Education Department with varying disabilities. Nine students were male and one was female. Eight of the students were LD, one was Hearing-Impaired, and one was Emotional Disabled (ED). Of the ten graduates, three male and one female student sought some kind of vocational training. Three completed training in one of the following areas: welding, medical assistant, or food preparation. One was accepted to a vocational institution but did not attend. One other student is seeking higher education and an internship in Washington DC with the Department of Defense System. Two students are gainfully employed in their certified areas in their local community.

1999

Eight Monument Valley High School Special Education students with identified disabilities graduated in 1999. Two were female and six were male, one student was labeled ED, one had suffered severe Traumatic Brain Injury (TBI), and six were LD students. Of the four male students who sought some kind of vocational training, two completed training and two are preparing for enrollment. Of the three LD students and the TBI student, areas of interest for vocational training included facility maintenance, carpentry, and heavy equipment and food preparation. All four students who pursued post-secondary vocational had work experience prior to high school graduation.

Conclusion

We think that students are more successful with completing vocational training if they have parental support. The more the students know about various vocational training programs, the more likely they are to apply for post-secondary training. The seniors who learn about the services are more likely to follow through with their application. This program only began in 1997. The senior transition class has been an important course in terms of preparing for transition and making it successful.

Even though we feel there are always ways to improve transition services to our students in rural areas, we think KUSD has made considerable progress in this area. The continued evaluation of their transition program will ensure the highest quality services are being provided to the KUSD students.

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WORKING WITH NAVAJO SPECIAL EDUCATION STUDENTS ON THE RESERVATION: CULTURAL IMPLICATIONS

Kayenta is located on the Navajo Nation, which covers 24,000 square miles and is equivalent to the size of the state of West Virginia. Parts of the Navajo Nation are located in three states: Arizona, New Mexico, and Utah. The Navajo Nation is the largest reservation in the United States. However, only approximately 160,000 live in this extremely rural area. Kayenta is one of the largest communities on the reservation and is where Kayenta Unified School District (KUSD) is located. The population of Kayenta is approximately 5,000. It is not uncommon for some students attending KUSD to travel on the bus two hours, one-way.

The district's student enrollment for the 1998-99 year was 2,740. Home language surveys indicated that Navajo is a primary language spoken in approximately 92% of the students' homes, although few of the students are considered truly fluent in the Navajo language. Indeed, a great number of students do not enter school fluent in either English or Navajo. The elementary and intermediate schools have one transitional bilingual classroom for each grade level, kindergarten through fifth, with approximately 18-25 students in each classroom. Twelve teachers in the district hold bilingual Navajo certifications. After fifth grade, funding comes from the English as a Second Language (ESL) program for which approximately 63% of the students are eligible. There are no pullout programs for ESL services. It is assumed that every child will be in an ESL certified teacher's classroom. Therefore, all elementary teachers grades K-6, and all reading and language arts teachers grades 7-12, are required to begin work on a 21 hour ESL certification within the first year they are hired.

Purpose

The purpose of this paper is to inform interested individuals of the challenges and learning opportunities encountered when working with students from culturally different backgrounds, specifically Navajo students.

Many Anglo teachers who are not familiar with life on the Navajo reservation find that their students' lack of English language skills is not the only barrier to communication. A dissimilar worldview, with different cultural expectations and taboos, also plays a major role in miscommunication (Kee, 1989; Scollan & Scollan, 1981).

Scollan & Scollan (1981) discuss four areas of misunderstanding typically found in interactions between English speakers and speakers socialized to communication patterns having their roots in the Athabaskan languages (of which Navajo is one).

1. Presentation of Self: In general, from the English speaker's point of view, conversation is the main way to get to know someone. They will seek conversation with someone whom they wish to know better. But Athabaskan speakers will feel that they do not want to talk with someone unless they know the person quite well, and will remain silent with strangers.

   English speakers are generally expected to present their best qualities (without bragging) "in job interviews, in school, in meeting strangers, or in getting arrested for speeding." In "the Athabaskan system…it is considered inappropriate and bad luck to anticipate good luck, to display oneself in a good light, to predict the future, or to speak badly of another's luck." (Scollan & Scollan, 1981, pp. 19-20).

   Another area of discrepancy concerns eye contact. Navajo children have been taught that looking someone directly in the eye is a sign of disrespect, whereas Anglo people see lack of eye contact as an avoidance tactic, or as indicative that the person is being dishonest or has something to hide.

2. Distribution of Talk: Scollan and Scollan (1981) state that when an Athabaskan speaker and English speaker meet, it is more likely that the English speaker will speak first. They state that studies have found that "the person who speaks first also controls the topic of conversation." Therefore, unless the two know each other very well, "the topic of conversation is almost always the English speaker's topic, not the Athabaskan's." Furthermore, the timing of the conversation will most likely be off. An English speaker will usually pause for around one second or less after a statement to let the other person respond. If the person does not, the English speaker will feel that it is okay to resume speaking. Because the Athabaskan speaker will wait around one and one-half seconds, he will most likely miss the pause which he feels allows him to speak without interrupting. Unfortunately, by then the English speaker has already gone on, with the result that the Athabaskan speaker feels that he is never allowed to speak (Scollan & Scollan, 1981, p.25).

3. Information Structure: Scollan and Scollan (1981) state the following:

   > As an example of information structure, if I say, "I saw a moose standing there," it means one thing. If I say "I saw a *moose* standing there," and stressed the word "moose," it means something else. When I stress "moose" by saying it a little louder and higher in pitch, the sentence means that I saw a moose but I expected to see something else, or nothing at all.

Athabaskan speakers and English speakers often misunderstand each other's meaning because of the use of different intonation, stress, and "other non-grammatical elements of the message" (Scollan & Scollan, 1981, p.29).

4. Content Organization: Scollan and Scollan (1981) relate that in their work at Fort Chipewyan they found that Athabaskan stories are carefully and formally organized in units of four: two main episodes plus an initial and final section. However, European folktales have traditionally been organized in units of three and English speakers will organize and remember stories in units of three. They maintain that this implies "a very basic difference in themes of conceptual organization" (Scollan & Scollan, 1981, p.35).

Method

The data presented in this manuscript were collected by members of the Reaching American Indian Special Educators (RAISE) program in Kayenta, Arizona under the supervision of their instructors from Northern Arizona University, Center for Excellence in Education.

Thirty-five open-ended questionnaires were distributed to teachers at the primary, intermediate, middle, and high schools. Twenty-six questionnaires were returned actually completed. In addition, we conducted five personal interviews with two teachers each from the primary and the middle schools, and one from the intermediate school. Also an informal interview was conducted with the district's curriculum director. The table below delineates the gender, ethnicity, total years experience, and certifications held by the respondents, and the types of student disabilities with which they have experience. All of the schools of KUSD participate in full inclusion of students with disabilities.

Survey Questions

1. What have you found to be your greatest challenges teaching on the Navajo Reservation?
2. Do you perceive many differences between teaching students with disabilities in Kayenta, and teaching non-Navajo students with disabilities?
3. Are there cultural differences that have required you to modify your approaches to teaching?
4. Do you feel that the district administration provided you with enough information when you first arrived in regard to cultural beliefs, taboos, and so forth?
5. What kind of communication challenges have you encountered? Do you feel that problems encountered are due to language difficulties or to differences in cultural outlook? Explain.
6. Are you aware of any assessment adaptations that are made for the students in terms of language and/or cultural appropriateness? If so, what are they?

Table I:
Gender, Ethnicity, Years of Experience, and Certification held by Kayenta Unified School District Teachers.

School	Questionnaire	Interviews	Gender		Ethnicity	
Primary	5	2	Male	0	Anglo	4
			Female	7	Navajo	3
Intermediate	7	1	Male	2	Anglo	3
			Female	6	Navajo	5
Middle	9	2	Male	3	Anglo	7
			Female	8	Navajo	4
High School	5	0	Male	1	Anglo	4
			Female	4	Navajo	1

School	Total Years of Teaching	Years Teaching on Reservation	Certification	Types of Disability
Primary	5 - 30	5 ½ - 21	Early Childhood, Elem. Ed., Sp.Ed., Early Intervention, ESL Endorsement, Reading, Counseling, Guidance, Adult Ed., BA, MA in Multicultural-Bilingual Ed.	MMR, LD, VI, HI, Speech, Physical Disability, FAS/FAE, ED/BD, Spinal Bifida, Autism, Deaf & Blind
Intermediate	6 ½ - 22	6 ½ - 22	BA-Speech Pathology, Elem. Ed, Multicultural, Sp. Ed., MA-Ed. Leadership, MA-Sp. ED., BA	Orthopedic, MMR, MR, LD, ED, HI, VI, Speech, Physical Disability

Middle	First - 32	First – 18	Elem. Ed., ESL endorsement, Secondary, Sp. Ed., Bilingual Endorsement, Administration, Reading, MA-Education, MA-Gifted, BA/BS-Med., BA, Post Secondary	LD, VI, HI, Deaf and Blind, FAS/ FAE, ED, LD, MR, ADHD, Cerebral Palsy, All Types
High School	6 mo.– 27	6 mo.- 20	Secondary-(Science, Agricultural Ed.), Sp. Ed., Counseling, Elem. Ed., Post Secondary	LD, VI, HI, MR, ADHD, TBI, Deaf/ Blind

Results

The response to question number one (What have you found to be your greatest challenges teaching on the reservation?) indicated that many teachers felt that the language barriers, isolation of the district, lack of resources, and the lack of parental reinforcement constituted major challenges. One teacher stated that students' and parents' lack of language background affects everything. "My students don't know the meaning of 75% of the words in their spelling book, so how can I expect them to spell them correctly?" Other comments included, "What's taught in school is not reinforced at home." " A great number of the students aren't encouraged to read at home. Many parents don't see reading or doing homework as being of value."

The responses of special educators specifically indicated problems resulting from the high turnover rate of medical staff at the Indian Health Services Hospital (IHS) and the lack of interaction between various government agencies such as IHS, Behavioral Health Services, Social Services, and the court system. One special educator referred to the "overwhelming amount of paperwork continually increasing every year—and so many students with a wide range of differing needs."

In response to question number two (Do you perceive many differences between teaching students with disabilities in Kayenta, and teaching non-Navajo students with disabilities?), the majority of teachers saw few differences. One teacher responded, "It helps to be bilingual…more so in special ed., than in regular ed." Another said, "The number of children entering school with no strong language base is increasing?" Another responded, "The only difference I see is the degree of leaned helplessness. It seems like non-Navajos tend to indulge their children more and the children in turn ask, "What do I get if I do that?"

Question number three asked if there were cultural differences that required modification of teachers' approaches. Many of the teachers said that they made no modifications, possibly because they were Navajo themselves and therefore understood exactly what was needed. Several teachers mentioned sensitive areas in the science and social studies curriculum. In the high school science curriculum, the dissection of animals is a taboo. One parent approached a sixth grade teacher saying that she did not want her child learning about reptiles. There are stories that are appropriate only at certain times of the year. "Some students are uncomfortable talking about owls and snakes." Care must be taken with field trips; some parents will not allow their children to visit ruins due to the possibility of being around burial sites or bones.

One teacher said she did the most modifications in social studies because "the social studies book, like every other social studies textbook, does not view Native Americans favorably. So we skip some things, we modify some things. We preface things with, "You may not feel comfortable with this, but it's mandated by the state and you will need to know it to pass."

Several teachers mentioned that Navajo children learn best by watching; teachers need to give examples and thoroughly demonstrate what they are teaching. Group cooperative learning activities are encouraged. One Navajo teacher mentioned the need to be sensitive to eye contact and to be aware of "body-space" when talking. The spatial distance between two persons talking will depend on whether they are men or women, relatives or non-relatives. "There needs to be a certain space when speaking to Navajos." She also recommended giving verbal "reinforcement" in private rather than in public.

Only two or three of the teachers said that the district administration had provided them with information regarding Navajo beliefs or taboos. One of the Navajo teachers said that she has observed veteran (Anglo) teachers still behaving like new teachers in talking about and/or using taboo materials.

The district Curriculum Director stated that in previous years there were more in-services given for new teachers, but because of staff turnover, there is almost no information given to new teachers now. She maintains that in many cases, teachers are so overwhelmed by the sheer workload, that the last thing they want to do is take time for another workshop. In the case of new teachers, the information overload factor causes many to put the materials aside, with a distinct possibility of never looking at them again.

Question number five (What kind of communication challenges have you encountered? Do you feel that problems encountered are due to language difficulties or to differences in cultural outlook?) revealed that for the majority of Anglo teachers, the language barrier simply exacerbated the miscommunication due to different cultural expectations. "There are minor syntactic issues, but the main obstacles I see are semantic incongruities derived from cultural differences," said one interviewee. A Navajo teacher stated that she was easily able to address language/cultural problems but "for the non-Navajo teacher, teaching becomes very difficult. Usually, the child withdraws, acts out, or refuses to learn when the teacher does not make accommodations for the child." Some Navajo teachers also occasionally have difficulty communicating with students because of the students' dialect and lack of English vocabulary. Also mentioned was the need to slow down and allow more processing time for questions and answers.

In response to the final question regarding adaptations to assessments, the majority of teachers said that they knew of none. One Navajo teacher indicated that with the exception of the Window Rock Oral language Test, she knew of no standardized assessment for Navajo students. "A lot has been standardized on (the) Hispanic population and Black population, but not that many on the Navajo population." The Window Rock Oral Language test was developed to assess Navajo language proficiency in the elementary grades, and a modification of it is used in the upper grades. In kindergarten through fifth grade, all teachers have aides who are able to explain concepts in Navajo if necessary. There are no aides available from sixth grade through twelfth.

According to the KUSD Curriculum Director, because of the types of program funding the district receives; the state strictly mandates the types of assessments the district is allowed to use. Assessments may be waived for the first three years of schooling, but after that time, formal standardized assessments are required.

Conclusion

Teachers' perceptions about teaching students with disabilities do not vary appreciably depending on whether the student is Navajo or non-Navajo. There are still many barriers to overcome. Aside from a Navajo oral language test, standardized assessments specifically geared to Navajo students are not available. Two of the greatest challenges that affect educators on the Navajo Reservation are the isolated environment and the language barrier. However, the overriding difficulty, in the words of one of our teacher interviewees is, "dealing with the frustration of cultural mores versus world reality." Most of the students graduating from high school will be forced to leave the reservation either to find a job or to pursue higher education. Kayenta Unified School District is committed to pursuing the goal of culturally compatible schools, while simultaneously teaching students the skills they will need to deal with life off of the reservation in Anglo society (KUSD, 1998). There exists a basic incompatibility, however, between the Navajo peoples' desire to maintain the values of their traditional culture, and acceptance of those attributes perceived necessary to excel in Anglo society, such as competitiveness, assertiveness, impatience, and restlessness—qualities which the Navajo people have generally rejected as unworthy.

As we have seen in this study, many misunderstandings arise from very different communication patterns. It would behoove us to overcome our ethnocentricity. In the Navajo culture there are many unspoken taboos and beliefs which could possibly interfere with traditional teaching methods and curriculum. The perception of most of the respondents is that KUSD could do more to introduce incoming teachers to the Navajo cultural beliefs and taboos. Checking with Navajo school employees to determine if classroom activities are culturally appropriate is suggested.

Based on the writers' experience, we think teaching the Navajo can be an extremely rewarding experience. Other suggestions for the non-Navajo teacher include becoming aware of the culture and lifestyle, be observant, open minded and good listeners, be flexible and be willing to learn and incorporate different values in the classroom.

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Parents
and
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PARENTS AS CHANGE AGENTS: OVERVIEW OF THE ARIZONA DEPARTMENT OF EDUCATION, PARENT INFORMATION NETWORK

In 1988 the Arizona Department of Education, Exceptional Student Services, (ADE/ESS) chose to enhance parent involvement in urban and rural communities throughout the state, noting that parents are able and important advocates for their children who receive special education services. The Department has continued for more than a decade to promote family involvement and foster parent leadership roles. Exemplary projects supported by ADE/ESS have been successful in nurturing parent involvement in ways that have lead many families to take a more active leadership role in their schools, communities, and statewide projects.

The Parent Information Network is a hallmark of the Arizona initiatives to involve families of special education students. Since 1991, the Arizona Department of Education, Exceptional Student Services, has contracted with several parents who have children with special needs to enhance parent involvement activities throughout the state. Known as Parent Information Network (PIN) Specialists, these parent leaders provide information and technical assistance to families and educators throughout the state. The rich cultural heritage and diverse geographical locations of rural school districts add to the unique opportunities and challenges for the PIN Specialists.

The primary role of the PIN Specialists is to facilitate the volunteer steering committee, Parents are Liaisons to Schools (PALS). This 21 member group was formed in 1988 to assist the Arizona Department of Education, Exceptional Student Services, with it's plans to enhance family involvement. PALS offer parental feedback on special education topics; update local parents and special education directors with information the ADE/ESS disseminates, including legislation and funding issues; give assistance and support to other PALS members; and encourage parents to become aware of their rights and responsibilities under the Individuals with Disabilities Education Act (IDEA). Over the years, many PALS members have gone on to leadership roles on state, local, and regional advisory councils, school board positions, and in legislative advocacy.

PALS representatives are nominated by school district special education administrators to serve a three year term. Fathers, mothers and grandparents, some with previous leadership experience, and some without, are chosen from diverse backgrounds and communities to offer their time and parental experiences to make a difference for special education students. The volunteer group represents families who have children from a variety of special education classifications and ages. At any given time, the group has members who have just joined PALS, as well as members whose ongoing participation helps maintain the momentum. The longevity and impact of this program is a testament to it's energy and commitment to special education students.

Each school year PALS representatives agree to attend two all day meetings in Phoenix, and two regional meetings closer to their homes. Travel, lodging and meal expenses are reimbursed for the volunteer parents. At the beginning of each meeting PALS members introduce themselves and share demographic information about their district. Attention is paid to creating a comfortable environment for becoming acquainted with each other. In addition, each participant has an opportunity to share information about parent involvement activities in their district, and network with the group to exchange ideas for addressing the needs of families and students in their communities. New PALS are carefully oriented to their role so that they know what to expect at the meetings and how they can participate. Parents who have been PALS for a year, or more, are asked to co-facilitate the meetings with one of the PIN Specialists.

Guest speakers are invited based on requests from parents. Presentations have focused on assistive technology, behavior management, augmentative communication, academic achievement testing, special education related Inernet resources, student led IEPs, and many others. A highlight of a recent meeting was a panel of adolescent students who shared educational experiences they have had at school and how their parents' involvement has helped.

At the statewide meetings Department staff present current information on legislative topics and statewide initiatives. Parents are given the opportunity to ask questions and provide feedback. PALS representatives are asked to take the information back to administrators and families in their school districts. Some PALS members have passed the updates along at local parent meetings and in school district newsletters.

Arizona Department of Education, Exceptional Student Services, staff carefully listen to the issues families bring to the meetings. The concerns and suggestions that parents have are very often used in state planning and development of new initiatives. ADE/ESS has revised publications to be more parent friendly, enhanced personnel training to include an emphasis on parent partnerships, hosted public forums, improved communication, developed an effective conflict resolution system, and earmarked funds for expanding parent involvement activities at the local level. Many rural schools applied for, and were granted these funds. The outcomes from the rural initiatives have given the state access to new ways to help involve parents and professionals in improved partnerships for team decision making

The Parent Information Network has also responded to the needs of families by creating new training workshops. PALS asked for instruction on parents' rights, IEPs, self-advocacy, and communication skills. These trainings are now regularly held by PIN Specialists around the state. In addition, documents have been authored by the PINS on topics families and educators have requested more information about. The Parent Information Network Clearinghouse distributes thousands of free resources annually. Many PALS members have set up mini-clearinghouses in their local communities to help educate families.

It's not uncommon for some families to be very involved in their child's education, however, they aren't able to attend activities on the school campus. PALS have formed video lending libraries tailored to meet the needs of those families. Video resources, on a variety of topics from parents' rights to disability awareness, give families a chance to educate themselves in the convenience of their home. The knowledge and skills they gain from the videos help them become even more involved in their child's education. The support parents give to their child's education at home is as equally important as the support they show at school functions.

Network News, the PIN quarterly newsletter, highlights PALS activities. PIN Specialists author this free publication that is mailed to over 4,000 parents and educators. National and state legislative updates, innovative special education programs, new resources, a question and answer column, and a training calendar are regular features. Immediately after current editions are mailed out, PIN Specialists get requests for new resources and follow-up information on the feature articles.

Another Department publication, SPecial EDition, targets special educators. PIN and PALS activities are regularly highlighted. On occasion, articles written by the PIN Specialists, PALS, or other parents are featured to give teachers and administrators the family's perspective of parenting a child with special needs. Parent participation is respected and encouraged by ADE/ESS. Their commitment to parent/professional partnerships is recognized by thousands of readers from around the state.

The behind-the-scenes support of each PALS special education director is the key at the local level for the success of this project. Their pledge to enhance parent involvement at the district level is essential. In partnership with the special education director, and assistance from their assigned PIN Specialist, PALS members develop an action plan individualized to their local school district. Administrators and PALS have started with very little parental involvement and built a program that reaches to all special education families in their district. By focusing on local needs, many rural districts have been able to tailor improvements and resolutions that earnestly respond to the unique needs of the rural community versus a "one-size fits all" solution statewide.

Initial steps to assess the needs of families in the community is often the first step. Surveys yield ideas and topics that are incorporated into an action plan. Some PALS have worked with a small group to create parent information packets. These packets are given to families at IEP meetings in response to their request for special education and disability specific information. PALS have set up special education resource centers in school libraries and on school web sites. It's not always easy to get parents to attend meetings, but when the events are tailored to their needs the turn out improves. PALS have hosted training workshops, public forums, sibling workshops, guardianship seminars, transition fairs, social events, disability awareness presentations, disability specific support groups, and teacher recognition assemblies. When appropriate, meetings have included child care, meals or refreshments, and translators. Events have been held in the early morning, mid-day, in the evening or on the weekend. It's not uncommon for PALS to collaborate with other parent support groups in their community to offer these events.

Nurturing better communication between home and school, plus linking parents with family support organizations, has been found effective in strengthening families. Not all family support organizations are located within the surrounding community. Outreach support services are often accessed by families via toll-free telephone numbers or on-line connections. This is particularly true in the extremely remote regions of Arizona, including Native American reservations.

The PIN Specialists are available to consult with the PALS representatives at any stage of the planning process. PINS keep in touch via either mail, phone, e-mail or on-site visits at least once a month. If needed, PINS attend events with the PALS to nurture their leadership skills. PALS even help other PALS. Mentoring is an important aspect of the PINS and PALS partnership. Participation in this project develops and sharpens leadership skills. In fact, the majority of the PIN Specialists were once PALS. By sharing successes, as well as how they have overcome local barriers, the PINS and PALS initiatives have been a springboard for other achievements and systemic refinements. The leadership efforts of all parents make them valued change agents in Arizona.

Parent Information Network Specialists are recruited by the Arizona Department of Education, Exceptional Student Services as private contractors. Interested parents respond to an RFP for one of six regions in the state. Respondents must meet certain specifications and offer strategies for addressing the goals and objectives of the project. This very unique project gives parents an avenue to work part time from their home base. PIN Specialists are in constant contact with the ADE/ESS staff coordinator and other PINS. Each PIN Specialist has phone, fax, pager and e-mail capabilities. Monthly conference call agendas focus on current activities, future planning, and always include opportunities to share success stories, to ponder dilemmas and continually hone leadership skills.

Each PIN Specialist has individual skills and experiences that strengthen the project. Some live in remote rural communities, some in large metropolitan cities, some in small towns, several in Native American reservation areas, and some near Mexican border towns. Each PINS has a child with a different disability. There is also diversity amongst the PINS in level of education, ethnicity and age. Currently, all the PINS are female.

The differences are distinct, and the similarities are obvious. Each PIN Specialist is zealous about parent involvement in special education. All the PIN activities are considered as possibilities for all communities in Arizona. The success of this project lies in the ability of the regional PINS to adapt the resources, trainings, and support to fit the needs of the community they are working in and the individuals who request assistance.

The Parent Information Network strives to work as a unit to reach goals. Certain tasks are rotated. The team also recognizes that some jobs are better done by a PIN with a certain talent and interest. Most assignments will give the PINS an opportunity to further develop their skills, as accountability to the group and state is expected. PINS take their role as a parent leader seriously.

PIN Specialists are familiar with the local education agencies, charter schools, state agencies, and non-profit organizations in their assigned region. ADE/ESS provides them with listings of schools, administrators, addresses, and phone/fax numbers. PINS routinely notify these groups of upcoming trainings, and available resources, in addition to mailing them Network News. PINS are also invited to attend state sponsored conferences and workshops to meet and network with these groups.

In addition to activities already mentioned, PIN Specialists frequently attend meetings and conferences with agencies and organizations to address special education and family issues. PINS are respected by professionals and families alike for the role they have of promoting positive family/school partnerships and quality special education programs for students of all ages. PINS have been well trained in special education law, conflict resolution, communication skills, meeting planning and facilitation, and certain disability specific topics. Their personal experiences raising a child with special needs gives them additional skills in mentoring and family support, as well as how to work proactively with educators and service providers. The expertise and role of the PINS has served as a conduit for parents, educators, and service providers to improve the referral network for families of children with special needs.

The breadth of their experience and the purpose of the PIN project has lead to many invitations to present training workshops, university and college lectures, and conference presentations at the local, regional, state and national level. PINS are regularly asked to consult with educators and service professionals about strategies to improve parent participation and leadership. Many of the PINS articles have been published in professional newsletters and journals.

The Parent Information Network Specialists diligently research topics of interest to families and educators in an effort to find, or author, documents for the PIN Clearinghouse. Well over 100 articles, brochures, booklets, audio and video cassettes and resource catalogs are listed on their order form, many in English and Spanish. Singles copies of the resources are sent free of charge. And, all materials can be photocopied. Copies of the order form are disseminated to PALS, libraries, schools, and at all trainings and presentations the PINS make. Certain video and audio tapes can be dubbed and have proved useful for parents and educators to share with others in their area.

In recent years, the Arizona Department of Education web page has included a link to the Parent Information Network's home page (http://www.ade.state.az.us/programs/assistance/ess/pinspals/). Viewers can download selected resources, directly link with PIN Specialists, and get updated information about trainings and current special education topics. This is just another strategy the PIN utilizes to encourage parent information, enhance knowledge of special education and promote parent networking and leadership.

When PIN Specialists have the opportunity to touch families, either face-to-face, by phone, or through resource dissemination, their primary goal is to give them the support and information they need at that moment. An 800 phone number connects families with an ADE/ESS receptionist who then forwards a message along to the appropriate PIN Specialist who promptly contacts the family. However, most often parents will call PINS directly. What makes the PINS role so effective is that, as parents, they can empathize with families. PINS encourage families to remain active in their child's education and feel confident in the partnership role they have with the school.

Often, parents remain in contact with PINS. When this occurs PINS are occasionally able to help the parent and their respective school district initiate parent involvement related activities. Similar to the support they offer PALS, the PIN Specialists have mentored parents in many communities to build partnerships with the school and establish a leadership role. By doing so, these parents have become invaluable local parent contacts, which has been especially beneficial to rural and remote communities.

Conflicts do occur between families and school. Both parents and special educators use the Parent Information Network for assistance. When that happens PINS share ideas for the most non-adversarial resolution possible, though never losing sight of the procedural safeguards IDEA guarantees students and families. PINS have state assigned regional consultants available to assist them with situations that are beyond their expertise and function.

As stated early in this paper, the Parent Information Network is a hallmark of the Arizona Department of Education's initiatives to involve families of special education students. But, it isn't the only project with state-wide impact and promising results. Enhancing Arizona's Parent Network, and Improved Parent and School Decision Making Grants, are two recent initiatives to further meet the goal of family participation.

Enhancing Arizona's Parent Information Network is designed to bring together all of the parent groups who work with children who have special needs to strengthen efforts in the area of information, training, leadership development and empowerment of parents. Initial meetings have brought together some of the players to share their mission statements, recognize the similarities and differences in their activities, and share ideas and resources for attaining the ideals of this new coalition. It is likely that as the group continues to define their group objectives, they will coalesce their training dates into a central training calendar, note gaps in needed supports for families, and determine possible ways to reach their collective goals. This coalition will include the PIN, state social services agencies, non-profit parent groups, and Arizona's federally funded parent training institute and protection and advocacy agency.

In the second initiative, over a dozen schools have been granted funds from ADE/ESS to build capacity to increase cooperative problem solving between parents and school personnel with the use of alternative dispute resolutions. Schools from rural and urban districts are developing strategies to address issues unique to their communities. Efforts thus far have included school district surveys to families and educators as a method of assessing needs and satisfaction. Staff and parent inservices on conflict resolution and team-building have been held. Communication with families has been improved with the publication of family oriented newsletters and newly activated phone trees. Web sites are being used to disseminate special education information. Parents have been hired by districts to serve as home/school liaisons. Additional schools will be eligible for funding in the near future. In both of the above initiatives, the Parent Information Network Specialists are actively involved and/or available for technical assistance.

As the nation focuses on improving educational outcomes for all students, ADE/ESS is in the forefront for developing programs that value family involvement and promote parental leadership. These innovative and successful programs have positively effected family/school partnerships and subsequently influence student performance. The Department's philosophy that parents should be equal partners in the education of their children is evident in their actions. As partners in the education process, families are vital change agents to ensuring a system that prepares their children for the future.

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USING ACTIVITY-BASED INTERVENTIONS FOR HOME CARRYOVER PROGRAMS

A challenge many educators and parents face when implementing a child's special education program is assuring the child's IEP goals are practiced in natural settings. Natural settings are those places where activities normally and naturally occur. It may be the child's classroom during story time, out on the playground at recess, or in the home during a meal. The activity-based intervention (ABI) approach is a sensible model to use to implement natural setting interventions. This approach can be used with students of all ages and abilities.

ABI is a child-directed approach, that utilizes natural occurring events in the child's environment to practice planned goals and objectives that have been identified for the child (Bricker, 1989; Bricker & Cripe, 1992; Lerner, Lowenthal, & Egan, 1998; Noonan & McCormick, 1993). A major advantage of this approach is that adults can naturally "teach" a child a particular skill at times when the child has initiated their interest in the activity of which the skill is needed. Activities and actions that are initiated by children are more likely to maintain their attention and involvement (Bricker, 1989).

To use this approach, educators and family members must identify activities or routines that occur frequently within particular settings, i.e. the home, classroom, lunchroom, restaurants. After the activities have been identified, strategies for practicing the IEP goals can be discussed. These two steps can help increase awareness of how and when a student's IEP goals can be practiced during natural events when the skill is functionally needed.

Practicing the goals during meaningful times and within a natural context is an extremely effective teaching strategy (Bricker, 1989; Bricker & Cripe, 1992; Lerner, Lowenthal & Egan, 1998; Ryndak & Alper, 1996; Westling & Fox, 1995). For example, if it is determined that a child needs to increase their ability to respond "yes or no" on a picture board communication system, it is most effective for the child to practice this skill during realistic times when a yes or no answer is naturally needed. Times for this skill may be when a parent is asking the child if he needs to go to the bathroom or if he wants more milk. This approach is much more effective than the more traditional approach of practicing to learn a skill through a series of artificial teaching prompts such as using pictures and asking the child to answer yes and no questions about the pictures. The first approach is meaningful and is occurring within a natural context while the second approach is artificial with minimal value to the student.

Using the ABI approach, family members can literally take the student's IEP goals home to extend the practice the child gets at working on the goals. With the extended practice, it is anticipated that the goals will be learned sooner and then new goals can be identified for the student to practice at home and within the school setting.

Although the ABI approach to intervention both at school and home sounds very logical and is obviously an important step in a student's special education program, it is often neglected to be used. This is particularly the case when considering home intervention carryover programs. All too often school personnel and family members do not formally discuss how and when a child's IEP goals can be practiced at home.

To further explore the benefits of the ABI approach in home settings, this study looked at using the approach with four parents of children with severe disabilities. In each of the four situations, parents were contacted to determine their interest in practicing their child's IEP goals at home. Upon obtaining the parents' interest, each parent identified goals from their child's IEP that were family priorities for their child to learn.

Additionally, the parents believed the selected goals would be ones that could reasonably be practiced at home. Secondly, the teachers and parents discussed natural activities at home where the skills could be practiced and possible strategies the parents could use to help the child learn the skills. The parents were assisted in identifying naturally occurring activities at home or in the community where the needed skills could be practiced. Daily data sheets were developed by the teachers and the parents to include a list of the selected goals and natural home routines. Space was provided within each data sheet for parents to comment on their child's progress at meeting the goals.

The four parents participated in this study for approximately eight weeks. At the end of each week, the parents would meet with their child's teacher to talk about the progress the child was making in accomplishing the goals and discussed any problems or concerns they had in the home carryover program. At this meeting, the parents would also turn in their daily data forms which indicated how their child was doing in learning the targeted skills. The specific steps the teachers used with the parents to implement the home program are as follows:

1. Discuss what ABI is and the benefits of this approach.
2. Identify the family's priority goals that are listed on the child's IEP.
3. Identify natural and routine home activities for the family.
4. Discuss how selected IEP goals could be practiced within natural & routine home activities.
5. Discuss specific teaching strategies and materials for the family to use.
6. Discuss methods of collecting ongoing data on the progress the child is making in the home program.
7. Identify a meeting schedule between the teacher and the parent to facilitate communication between home and school.
8. Make appropriate revisions to the home program as needed.

After the eight week period, the parents' data forms on the home accomplishments were analyzed by the teachers to determine progress. Additionally, teachers' impressions on the students' skill levels in each of the goal areas were analyzed to determine if the teachers and the parents were in agreement on the child's progress.

The following results were found. Both the parents and the teachers believed the children had made significant gains in learning the skills they had practiced at home. The teachers were particularly impressed that the children's skill levels were maintained following weekend and holiday breaks. The teachers attributed the children's skill maintenance levels to the extended practice they were receiving at home.

An additional area studied in this project was the parents' and teachers' impressions of the general usefulness of the ABI format for home carryover programs. Each of the parents stated they learned more about their child's capabilities and needs. They felt empowered with this knowledge, since they had attained first hand experience at implementing their child's program. Although the parents met with notable success, they commented that implementing the home program was not as easy as they had thought it would be. They said the goals appeared to sound so simple on the IEP form, however, when they tried to practice them at home, it was difficult. For example, one parent said when she first started the program she felt she needed special material or equipment that the school had in order to implement the home program. Another parent said during the first week of the home program, she didn't know how to exactly teach the skills to her child. These comments stress the importance of parents receiving appropriate support and ongoing communication in order to facilitate the success of a home program. The weekly meetings the teachers had with the parents helped to address these types of parental concerns.

The teachers agreed with the parents on the importance of communication. They said what appeared to be obvious goals and natural teaching practices to them was not so obvious or natural to the parents. The teachers believed appropriate time and support needed to be given to the parents to help them learn teaching strategies to carry-out the home program.

As an additional area, the teachers remarked the ABI format helped them and the parents to assure functional skills were identified at the IEP meeting. They said that when settings were analyzed to determine times to practice the skills, they were forced to evaluate the goals present and future utility. If there was little functional need established for the goal, the goal was reconsidered and replaced with a more appropriate functional goal.

A final positive outcome of this study was the increased empowerment that the parents felt as a result of being involved in their child's intervention program. The parents stated they would want to take a more active role in future school meetings when discussing their child's needs and in selecting goals for their child. The teachers agreed they saw the parents make great gains in their knowledge about their child and in their desires for future involvement.

Summary thoughts: The impact this ABI home program had was impressive. Through the use of the ABI format, parents were able to clearly see how they could practice their child's goals at home, thus providing an extended program to the school program. With extended practice, these students made greater gains in skill areas than they would have with solely a school intervention program.

The other positive impact was the increased empowerment the parents realized. They truly learned to capitalize on their expertise of knowing their child and learned they were a resource to their child's program.

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ASSISTIVE TECHNOLOGY MADE SIMPLE

In the past century we have seen an explosion of technology. Many technological advances have certainly benefited individuals with disabilities. The government has also passed legislation that notes the importance of technology for individuals with special needs. However, assistive equipment is often expensive, and unfortunately, not covered by health insurance programs. Consequently, access to assistive technology is difficult for some.

As we head into the new millennium, we must be ever aware not only of the needs of individuals with disabilities, but also changing technology and the opportunities the changes present. The workplace has changed dramatically and with continued advancements in the area of technology, educators must reevaluate how they prepare students and families for the future. During this computer age, we are becoming a more global community and the importance of integrating individuals with special needs into the larger community becomes much more apparent and relevant. By providing individuals who have special needs with adapted and assistive technology that permits them to interact with their world and communicate with others, we can help to ensure a successful future for all.

The passing of the Technology-Related Assistance for Individuals with Disabilities Act (PL 100-407) in 1988 established the ground work to allow broader access to technology for individuals with disabilities. The law was designed to assist states in developing comprehensive programs involving technology services and assistance to individuals with disabilities and their families. This legislation provides support for both assistive technology devices and assistive technology services. Assistive technology services can be defined as the actual direct assistance given to an individual and his or her family to choose, modify, learn, and evaluate the need for or use of technology (Church & Glennen, 1992). The Tech Act defines assistive technology rather broadly as "any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve functional capabilities of individuals with disabilities". Accardo and Whitman (1996) have also defined assistive technology in rather broad terms as "a piece of (re)habilitation equipment, or product system used to increase, maintain, or improve the functional capabilities of individuals with disabilities". These broad definitions allow for many devices and items to be considered as assistive technology. The 1997 reauthorizations and amendments of the Individuals with Disabilities Education Act (IDEA) also requires the consideration and inclusion of assistive technology on student Individualized Education Plans. This qualifies under supplementary services that assist a student to benefit from a free appropriate public education (FAPE) in the least restrictive environment (Chambers, 1997)).

There is a wide range of technology from simple adaptations, such as providing a rubber grip on a writing instrument, to highly sophisticated communication devices and power driven wheelchairs. This range of available modifications and devices is necessary to accommodate the varied needs of individuals. Assistive technology is typically divided into two categories, low technology and high technology (Church & Glennen, 1992; Flippo, Inge & Bracus, 1995; Judge & Parette, 1998). Low tech devices are generally more simplistic in nature and included basic modifications of existing equipment, simple devices such as picture boards, plate stabilizers, and switches, while high tech devices are more complex and included items such as wheelchairs, computers and more advanced communication systems. Low technology typically allows for or permits better access and performance and requires little or no training whereas high technology usually requires training for both the professional and the individual for whom the device is intended. As one would predict, low tech devices and modifications are generally less expensive than high tech assistive devices.

The goals of assistive technology can be summarized as the following: 1) to achieve greater independence, 2) to improve functioning, 3) to provide inclusion, and 4) to improve quality of life. As professionals serving individuals with special needs, we can easily comprehend how individuals can benefit from the application and use of technology. However, the issues surrounding the use of technology become apparent almost as soon as we begin to attempt to obtain an expensive communication device or even when requesting supplies to make more simple modifications. In the book, Assistive Technology for Young Children with Disabilities, Sharon Judge and Howard Parette(1998) identify several issues and challenges pertaining to the acquisition and implementation of assistive technology programs and interventions. One major issue is that only a limited number of individuals receive technology and services. This may be due to the fact that professionals working with children and families have limited or insufficient technology skills and knowledge of the wide variety of modifications and devices currently available. Lack of access to the services can also be a contributor to this issue, especially in rural and remote areas. In some states the technology assistance and evaluation teams only visit certain areas annually, or families must make long drives often involving an overnight stay to university facilities for assistive technology evaluations and equipment fittings and modifications. One way to address this issue is to train more personnel to evaluate and make recommendations of modifications and technology. In general, special educators should be provided with solid assistive technology assessment techniques that address how to choose appropriate technology based on the needs of the individual.

Another concern is the issue of funding. Judge and Parette also cite insufficient funding as a major barrier. This would include both the lack of funding for direct purchasing or rental of equipment, as well as insufficient dollars allocated for training and inservicing in this area. In order to reduce costs, school districts often limit the number of individuals trained to complete evaluations. Schools, agencies, and families often have to seek out private dollars to pay for equipment when insurance coverage does not permit the purchasing of devices or only allows purchases to be made once every two to five years (Wallace, 1995). One must also consider the repair and maintenance of equipment and upgrading of computer hardware and software in order to accommodate the student's growth and development.

Another issue related to the use of assistive technology is that of "abandonment" or lack of use of the technology by the individual. This can occur for a variety of reasons, such as the acquisition of an inappropriate device that may require advanced skills, the fear of damaging a computer keyboard or communication device if a student takes the equipment on the playground or to summer camp, or because of failure to identify resources and supports for families and teachers (Church & Glennen, 1992; Flippo, Inge & Bracus, 1995; Judge & Parette, 1998).

Even though there are many issues related to the acquisition and use of assistive technology, professionals serving individuals with special needs and their families should not be afraid to make use of their creative energies. They should consider making devices that may be to expensive to purchase, and to modify technology already available to them. A trip to the local hardware store or even scanning one's home can provide many of the necessary items to make simple modifications or even low tech devices. Basic grips can be made using bicycle handle grips, plates, cups and bowls can be made skid-free by simply apply foam shelf liner. The local electronic store has the equipment for making homemade switches at a cost considerably less than commercially made switches. By making necessary assistive technology equipment, families can better understand the benefits of the technology and they may not be as likely to be overwhelmed when using the device, and given the opportunity to join in the process. By reducing the cost, enough materials can be purchased to make duplicate devices for home and school.

Professionals should also be advocates for technology and attempt to seek out alternative sources of funding. The need for assistive technology can be an opportunity to create new relationships with the vocational and industrial arts teacher, the high school industrial arts club, and local community civic organizations, such as, the Telephone Pioneers. Student members of the industrial arts club could form peer-partnerships with students with disabilities and make assistive devices for their assigned student. The Telephone Pioneers or local businesses could become partners in education with a classroom and provide funding for or make equipment for the students to use at school and at home.

With new technology revealing itself daily, it is imperative that professionals, engineers, businessmen and individuals with disabilities and their families work together collaboratively to advocate for and design assistive devices that are both needed and affordable for agencies, schools, and individuals. Whether children and adults with disabilities can use high or low assistive technology, their quality of life can be enhanced. They can have increased physical access to their home and community, and they can gain communication and interaction with the others in their community and possibly around the world through the use of technology.

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BUILDING INCLUSIVE SCHOOL AND PRE-SCHOOL COMMUNITIES

The Center for Community Inclusion, Maine's University Affiliated Program, includes among its many projects LEARNS and LEARNS Early Childhood, Maine's Statewide Systems Change Initiatives for Inclusive Education and Inclusive Early Care and Education, respectively. LEARNS was established in 1989 as a joint initiative of the Maine Department of Education, the University of Maine, and collaborating school districts. While the initial focus was to create inclusive educational opportunities for students with severe disabilities, the purpose was broadened in 1992 to include all students with disabilities. In July 1993, the Maine Department of Education and the University of Maine received federal funding for a collaborative five year Statewide Systems Change Project for Inclusive Education. In 1994, the LEARNS initiative was further broadened by the Maine Department of Education to address early childhood care and education (LEARNS Early Childhood).

The LEARNS Projects support early care and public school educators by presenting workshops and seminars on inclusive educational practices; conducting on-site planning and technical assistance; providing consultation; sharing Information and disseminating resources; developing resource materials; and conducting research and policy analysis.

LEARNS is committed to: enhancing the capacity of Maine's schools, early care settings and communities to provide meaningful and high quality inclusive educational opportunities for *all* students and children, including those with disabilities; ensuring that all Maine's young children and students benefit from statewide educational reform efforts, including Maine's Learning Results and School to Work; providing state and national leadership in advocating for inclusive education for young children and students with disabilities; enhancing the educational outcomes and pre- to post-school opportunities for children and students with disabilities; supporting families to ensure inclusive educational opportunities for their children; and supporting the collaboration of families, educators and communities to create inclusive education and early care and education in Maine.

As LEARNS and LEARNS Early Childhood staff worked with educators in schools and preschool settings to address these goals, they became aware of the tremendous need for foundational training around disability issues as well as educational restructuring for diverse learners. Although there is a variety of legislation that addresses equal opportunity for all individuals (i.e., Brown vs. Board of Education; Section 504; IDEA; P.L. 94-142; ADA, etc.) there continues to be inequities in the quality of educational experience that exists for children and students with disabilities. Oftentimes, inequities result when educators do not have the appropriate training or necessary supports to provide meaningful learning experiences for diverse learners. In an attempt to address the need for ongoing training for school and preschool educators, the LEARNS staff developed *Foundations of Inclusive Education: A Staff Development Guide*. An overview of the guide, demonstration of the accompanying CD and several sample activities will be offered during this session. Following is a description of the guide and the activities, which will be presented.

Foundations of Inclusive Education prepared by Elizabeth Enright, Mark Fairman, Debbie Gilmer, Martie Kendrick, Linda Labas, Kathy Son, Maria Timberlake and Lucille Zeph, provides fundamental information on inclusive education for school and preschool educators. To conduct educational reform, school/early care restructuring or improvement, a comprehensive, planned approach to staff development is essential. With the emerging emphasis on a systemic approach to results-driven education (in Maine called Learning Results), staff development must involve all aspects of the system (i.e. curriculum, instruction, assessment, parent and community involvement) and ensure a coordinated effort toward an established set of outcomes. As the information provided in the guide demonstrates, inclusive education is not a separate initiative for young children and students with disabilities. Inclusive education is an integral part of school and preschool restructuring that serves to promote high standards for all children. The information contained in the guide can be used to provide information and discussion about caring for and educating all students. The developers of the guide hope that this material will assist early childhood professionals, families and educators in their efforts to create learning environments in which every child will start school ready to learn, every student will achieve Maine's Learning Results, and all individuals will gain the knowledge and skills they need to play, work and live in their communities.

Foundations of Inclusive Education is designed to be used for staff development in schools, early childhood and community programs interested in learning more about and exploring the foundations of inclusive education. The guide addresses the following questions:

- How is inclusive education distinguished from mainstreaming and integration?
- How is inclusive education part of general education reform?
- What are the implications of standards or outcome-based education for students with disabilities?
- What is objectives student or family-centered planning and how can its use assist in reaching inclusive?
- What educational strategies (i.e., curriculum, instruction, assessment, collaborations, etc.) support effective inclusive education for all students and young children?

Foundations of Inclusive Education is divided into four sections: (1) Creating a Community of Learners; (2) Building Collaborative Partnerships: Student/Family Centered Planning; (3) Bringing It Into The Classroom: Curriculum, Instruction and Assessment; and (4) Addressing Changes and Challenges. Section One, Creating a Community of Learners, looks at the evolution of educational practice over the last 50 years, and reveals how certain attitudes and practices have become entrenched in the system. Differences in some commonly used terms (i.e., “mainstreaming,” “inclusion,” student centered learning”) and the implications each has for how students are taught are explored. Additionally, the quality components of inclusive schools, early care settings and classrooms are considered. Hands-on, interactive activities and discussion are used to explore how personal attitudes, language, environmental design and teaching practices provide the context for creating a caring community of learners. Creating such an educational system that engenders both equity and excellence is a primary concern of many families, educators, and communities. It is recognized however that inclusive school philosophy, improvement plans, policies, and practices do not exist in isolation of current state and national initiatives. Additionally, it is imperative that inclusive education be considered an integral part of school improvement plans and not a separate initiative for students and young children with disabilities. Section One of the guide is intended to raise awareness of current issues and challenges, that face educators throughout the nation as they restructure to meet the needs of all students and children, including those with disabilities.

Activity 1.1 in this section of the Guide will be presented during this session. The activity involves the use of a timeline illustrating the evolution of civil rights and educational legislation around the treatment and education of individuals with disabilities and the accompanying changes in community placements and practices. Participants are asked to note on the timeline the date of their graduation from high school. Discussion ensues around participants' school experiences related to peers with disabilities and how that differs from the way education is conducted today, the opportunities and challenges this presents, and implications for the future. This activity has been well received in many school and early care settings. It is an excellent tool for expanding the understanding of school board and community members who may not understand the current realities for schools.

Section Two, Building Collaborative Partnerships: Student/Family Centered Planning, presents the importance of building collaborative partnerships with the educational setting. Collaborative partnerships are an essential tool for developing individual student-centered plans as well as for providing focus and vision for organizational change in schools, workplaces and communities.

Student or person-centered planning refers to a category of approaches designed to organize and guide change in schools, workplaces and communities for people with disabilities, their families and friends. Frequently used models of person-centered planning include MAPS (Making Action Planning Systematic; Forest and Pearpoint), Path (Planning Alternative Tomorrows with Hope; Pearpoint, O'Brien, and Forest) and Personal Futures Planning (Mount). They differ in form and content but all share common underlying beliefs. These include: (1) an emphasis on the focus person and his/her family and friends as the authorities on what the person likes and needs; (2) a requirement of collaborative action to work toward a person's desired future; and (3) a requirement of time, effort and unconditional personal commitment.

Person centered planning originated in the disability field as people searched for ways to support individuals who had been previously excluded and who were the victims of stereotypes and low expectations. The information in Section Two is designed to help teams begin the process of supporting all members of a school community regardless of labels and challenges. Participants learn about the student centered planning process, and have an opportunity to practice and plan for its use in their own settings. They also learn how the information generated from a student or family centered planning process can be used to develop an individualized education plan for the student. For very young children, a family-centered planning process is strongly emphasized as the foundation for high quality assessment, evaluation and planning for inclusive early care and education for young children with disabilities.

Many educators have found that the person centered planning process can contribute to a reduction in anger, frustration, and communication breakdown as this process serves to both empower families as well as address needed supports for educational staff. Student-centered planning is not a final destination or a fixed model that can be applied to everyone in exactly the same way. It is unique and individual each time it is done because it is the "map" for that child, young adult, and family.

Section Three, Bringing It Into the Classroom: Curriculum, Instruction and Assessment, builds on what was learned in Sections One and Two. As staff moves through the process of developing a common philosophy of inclusive educational practices, and learning new methods of gathering information through student centered planning, the next step is assuring that all students succeed in the classroom. With increased attention being placed on educational reform, including a stronger focus on academic excellence and accountability, improving the effectiveness of instruction for all students at all academic levels has received considerable attention. Practices that involve active and authentic learning, multiple intelligences, performance-based assessments, and action research can help to transform schools and early care settings into student/child centered places of inquiry and learning. Interactive experiences such as cooperative learning are often cited as supporting promising outcomes for elementary and high school students and have emerged as methods to study within early childhood education.

> "One-size-fits-all instructional approach is being replaced with instruction that is appropriate for a variety of learning styles, that is interactive, and that motivates learners. The newer approaches to instruction, in which diversity is not only recognized but valued and affirmed, are the most likely to be successful in teaching all students, including those who have labels such as 'disabled,' 'at risk,' and 'difficult to teach'" (Falvey &Givner, 1996, p.10).

For educators creating classroom communities where all students and young children can achieve to high standards and have equal opportunities to learn involves broadening assessment and teaching methodologies. In heterogeneous classrooms, students vary by ability, experience, background, gifts, talents and needs. Some students will require more support, more time, more practice, adult help, or adaptive equipment. Others may need more flexibility to explore a topic in depth, more adult mentoring, or varied opportunities to work both individually, as well as cooperatively with peers. To effectively address the diverse and changing needs of all students, instruction and assessment must be planned pro-actively.

The first task is to know students well, know their needs, styles, and attitudes so that planned lessons can be successful. This is the opposite of adapting lessons after students have failed, or amending preplanned ones. This process involves team planning, identifying the underlying concepts in each unit, and personalizing goals and supports. Assessment information informs instruction and drives the development of personalized, strength driven, instructional plans (for IEP/IFSP, etc.), using the classroom curriculum as a base for all students.

Section Three, in order to address the challenges of creating classrooms where all learners can succeed, explores options in curriculum design, instruction and assessment. These include multiple intelligences, performance-based assessment, differentiated instruction, and multi-level instruction, among others. The importance of identifying learning outcomes, and connecting these with authentic assessment, curriculum and instruction practices that support student/child centered learning is examined.

Finally, Section Four, "Addressing Changes and Challenges," builds on the learning of Sections One, Two and Three to examine how student-centered classrooms create a climate for individual needs to be met. Teaching and caring for children today can be a daunting experience for new, as well as experienced educators and families. Revolutionary changes in the field of disability, reflected in our laws, educational placements and evolving practices challenge even the most progressive professionals to "stay on top of their game." It is recognized that change is inevitable and that efforts to introduce new educational practices and heterogeneity within our schools and early care settings require opportunities for staff to develop new skills and to collaborate and work together to address problems in dealing with change (Inclusion Times, NPR, Spring, 1997). Additionally, creating classroom communities where all children can grow, develop and learn is ever more challenging, given the growing diversity in our schools and communities and the increased numbers of students with mental health, emotional, social and complex health issues. While these changes impel creativity and opportunities, they can also create challenges and stresses. Recent educational studies and surveys identify behavior, student discipline, and children with violent behaviors as the number one concern of teachers and schools (Innovative Discipline, NEA teacher to teacher book, 1994).

Successful schools identify the relevant issues for individuals, both students and professionals, and build supportive structures that allow for creative problem solving. They recognize the importance of environment and climate as the foundation for effective teaching and learning. Section Four considers questions such as: How can educators positively support children with diverse learning styles, special health care needs, and challenging behavior within our classrooms and communities? How can educators, families, administrators and community member be supported to: 1) manage change effectively; 2) proactively address issues on an ongoing basis; and 3) learn and cultivate in-house expertise for developing creative problem-solving mechanisms? Additionally, Section Four provides a sample framework for working collaboratively within a team to address both the needs of individual students/children, as well as broader challenges related to administrative, programmatic and community issues.

An adaptation of Activity 4.1 will provide participants in this workshop an opportunity to experience a backward planning or outcome-based process. Additionally, it offers an opportunity to discuss and think about the elements of a caring community and assists educators in identifying how they can build and enhance a caring classroom. Participants will work in pairs to describe a caring classroom where safety, relationships, choices and respect are valued. They will discuss what the physical environment would look like; what an educator could do to promote this; and what students could be observed doing in this setting. This will be followed by large group facilitated discussion.

Foundations of Inclusive Education is organized for easy use as a staff development tool. A section on "Helpful Hints" makes practical suggestions for preparing a workshop or training; presenting a training; using the guide itself; and using the accompanying CD and video. Each of the four major instruction sections includes instructor information; objectives; presentation outline; and suggested activities. Handouts and transparencies are provided and clearly labeled. The CD includes all handouts and transparencies, which can be adapted for use within varying educational settings. At the end of each section, review questions are offered to assist in clarifying and integrating the learning that has occurred. The presenters of this session will provide representative handouts from the guide. Order forms for the guide and CD will be available.

The LEARNS team at the Center for Community Inclusion, Maine's UAP, has presented the information contained in this staff development guide to a number of school, early childhood and early intervention teams across the state. Training brochures invited each setting to send a team and identified the roles that might be represented. Since the guide is intended to support the concept of educational reform for all students, including those with disabilities, it was important that the teams reflect representatives from various stakeholder populations, for example, administrative staff, teachers, both regular and special education, and parents. Additional team members may include the student with a disability, school or agency board members, community members, family supporters, etc. Getting the right people to the table and leveling the playing field, which these seminars have reliably done, provides an exceptional opportunity for personal growth and the development of collaborative leadership. The designers of this guide have been impressed with the creativity, energy and enthusiasm expressed during the two-day seminar. Individuals who might previously have "come to the table" in conflict, began working together to figure things out in a neutral setting, over common concerns. This was an unanticipated but most welcome outcome.

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CAPITALIZING DISTANCE TECHNOLOGIES TO BENEFIT RURAL CHILDREN AND YOUTH WITH VISUAL DISABILITIES

This paper describes the use of Internet and other distance technologies to train local specialists in education of students with visual disabilities in the fourteen states comprising the Western Interstate Commission on Higher Education. A small proportion of the students in the program are themselves, blind or visually impaired. The paper shares challenges, insights, and practitioner perspectives from the technological, design, and the subject matter experts.

While students who are blind and visually impaired (BVI) represent less than one-half of one percent of the school age population, they are a group of students with multiple and often complex educational needs. One of these needs is for a specialized teacher trained in the methodologies of blindness and the adaptations necessary to facilitate access to the general education curriculum. Rural school districts do not easily meet the needs of these students, in part because of the cost of hiring these specialized teachers, and in part because qualified teachers of students with visual impairments are in short supply. The shortage grows yearly (Ingersoll, 1999), as universities close teacher preparation programs that consume huge amounts of fiscal and human resources without producing equivalent tuition revenues.

Less than 400 new professionals in blindness and visual impairment enter the field annually (Ferrell, 1999). The teacher shortage in blindness has become so severe that the Office of Special Education Programs funded a special project to investigate the depth of the problem and to develop a national plan for meeting the personnel needs of the future. Although the results of this project have not yet been published, it appears that the nation's capacity to prepare specialized teachers is sorely stretched. Using technology to train teachers at a distance, especially in those states that do not have teacher training programs in blindness, is one way of expanding the nation's capacity while permitting students to remain in their current jobs in their home communities. For rural school districts, this may be the only way they will ever recruit a specialized teacher for their children with visual impairments.

Project Description

In January of 1998, the US Department of Education funded a three year grant project (Federal Grant #H029A70113) at the University of Northern Colorado to design and deliver a graduate master's degree program in blindness and visual impairment to the 14-state region of the Western Interstate Commission on Higher Education (WICHE). The $1.1 M grant project currently offers courses to 78 students working to complete 17 to 62 semester hours of coursework (depending on previous training and experience). These students are geographically distributed across the United States, over half of them in states without personnel preparation programs in blindness and visual impairment. The first classes were delivered in the fall of 1998. Eleven courses have been converted for distance delivery as part of this project and two remain. In the fall of 1999, seven courses were delivered with a total of 73 students registered.

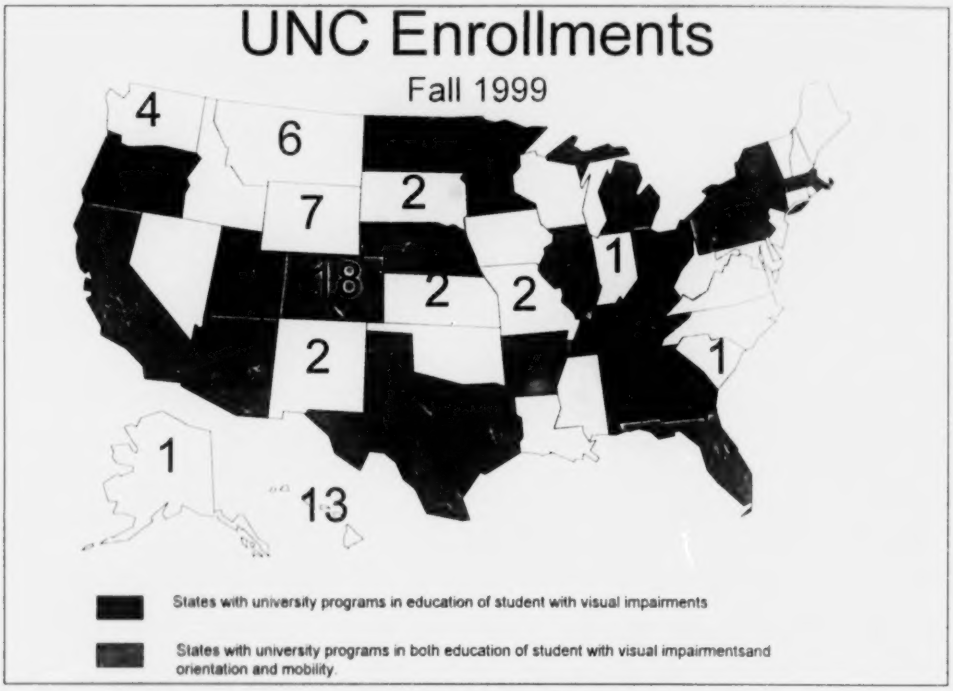
UNC Enrollments
Fall 1999
4
6
7
2
18
2
2
1
2
1
1
13
States with university programs in education of student with visual impairments
States with university programs in both education of student with visual impairmentsand orientation and mobility.

Figure 1. UNC enrollments in Severe Needs: Vision program

Four project objectives were stipulated at the outset. First, to provide faculty support (one semester course release) in the conversion of course offerings to formats suitable for the WWW, compressed video, broadcast, and other distance technologies. Second, to investigate the program's participation in the Western Governor's University. Third, to provide financial support for the costs of course transmission and delivery to WICHE states and to allow for field-testing and evaluation of the distance delivery model. Fourth, to provide financial support to students and professionals from the WICHE states. In addition, all tuition expenses of admitted students who qualify are paid by the grant. Students must maintain a 3.0 GPA and are required by federal law to repay their scholarship if they do not enter the teaching profession.

The BVI faculty at the University of Northern Colorado have a deeply held philosophy about this severe needs program. It was agreed early on that the distance delivered program would subscribe to the same philosophy and that has influenced many design and implementation decisions. The philosophy statement is:

> "The UNC Severe Needs: Vision program is based on a firm and continuing commitment to the rights of all students with visual and other disabilities to receive equal educational opportunities, including equal access to the curriculum. The faculty believes that each learner should be provided educational opportunities that maximize potential for whatever level of independence is possible in order to be productive in society and to live a meaningful and fulfilling life."

While it may be more difficult for the person without sight to take advantage of today's visual distance environments, this project demonstrates that there are many strategies that can be incorporated within distance learning environments to leverage the communication potential of these delivery technologies. A focus on collaboration, sharing, and contextualized experiences allows not just "teaching-by-telling, but learning-by doing" (Stanard, 1999, p. 49).

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This project is one example of Molly Broad's comments about virtual learning, or the "fundamental importance of high-quality faculty and effective interaction, both between faculty and students and among students. Faculty rightly believe these are fundamental to good education; however, with the growing array of technology tools, it is possible to achieve those objectives online. In addition, virtual learning can also bring a very rich array of academic resources to the learning process—resources that address the multiple learning styles of students, and resources that greatly enrich the educational materials available to students" (Morrison, 1998, p. 3).

The project team consists of:

- Dr. Kay Ferrell, Project Director and Special Education Division Director
- Chuck Wright, Project Coordinator
- Dr. Kay A. Persichitte, Instructional Design and Distance Delivery Consultant, and chair of the Department of Educational Technology
- at least five other special education faculty
- multiple educational technology graduate assistants

Design and Development Issues

Instructional design (ID) issues that have influenced the project cut across a broad range.

- alignment of course content with four sets of professional standards
- special education faculty review of course objectives for overlap and update
- introduction/implementation of the ID process (generically: ADDIE for analysis, design, development, implementation, evaluation)
- helping discipline faculty revision traditional instructional strategies
- delivery system and media selection
- materials development with attention to the special needs of the BVI
- discipline faculty preparation to teach in these mediated instructional environments
- complete revision of student assessment and evaluation to a standards- and performance-based model
- creation of student and faculty support materials

Other issues that have surfaced are related to the administration and implementation of distance learning programs.

- faculty and student access to distance technologies is not yet ubiquitous
- importance of strong administrative support from the College of Education Dean
- project management requirements were underestimated (timelines, coordination, collaboration); the degree program is complex due to state licensure requirements; the participation of non-special education faculty requires additional time; other campus support systems (Academic Technology Services)
- facility design was required (WWW access stations; digital video development station; compressed video classroom)
- technical considerations at the development level and the end user level (e.g., Website compatibility with screen readers, software versions, Web browsers and their configuration; software downloads)
- remote student access to registration, library resources, textbooks, advising, financial aid, and other support services in a university environment unprepared for these requests.

Delivery Systems and Media

The project purposefully employs a wide variety of distance delivery systems and media. In particular instances, materials are developed in more than one media to allow all students (sighted and non-sighted) access. Though not a stated objective of the project, an unintended consequence has been that the students are increasing their use of and comfort with technology, in general. All members of the project team believe in the power of technology to meet learner needs and in the importance of better preparing teachers to effectively utilize technology with their students. For these students who will teach children who are BVI, Hardman's (1999) comment strikes a loud chord, "A technologically competent work force in the education industry is needed to continue to keep the promise of universal education: to leave behind no child who is willing to try" (p. 4). The project relies on the WWW, compressed video (CV), text (student handbooks and coursepacks), videotape (custom and commercial), CD-ROM (custom), a required campus component during one summer, computer video conferencing, synchronous and asynchronous communication via the Web, audioconferencing, and commercial satellite downlinks.

The discipline faculty felt strongly that the distance delivered program should be as student-centered as the campus program. The design and development process has consistently incorporated Sorg and Truman's (1997) recommendations for creating quality student-centered virtual classes. Their recommendations included personalizing instruction, humanizing the course pages, providing advance organizers, and assuring easy navigation between and among course topics.

Courses delivered to date include:

EDSE 540	Independent Living for Individuals with Visual Disabilities
EDSE 542	Assessment and Methods for Teaching Students with Visual/Multiple Disabilities
EDSE 543	Braille Codes and Formats
EDSE 544	Technology for Students with Visual Disabilities
EDSE 545	Advanced Braille Codes and Formats
EDSE 546	Principles of Orientation and Mobility
EDSE 641	Medical and Educational Implications of Visual Handicaps
EDSE 642	Advanced Seminar in Education of Students with Visual Handicaps
EDSE 643	Psychosocial Needs of Individuals with Visual Handicaps
EDSE 644	Practicum in Education of Students with Visual Impairments
EDSE 648	Practicum in Orientation and Mobility

Though multiple media and distance systems are used to deliver this program, the WWW has been chosen as a central learner and instructional resource for the redesign of each course (http://vision.unco.edu/). A standardized navigation shell was custom created so students do not feel "lost" each time they begin a new course in their program. Each course, however, relies to varying degree on the Web for the delivery of instruction. All courses have embedded syllabi, links to the four sets of discipline standards and course standards, course requirements, description of course activities, an asynchronous threaded discussion area, course schedule, and a place for additional resources that may or may not be Web-based. Each course also has a dedicated class listserv. Some of the course Websites include interactive custom-designed tutorials, synchronous discussion areas, samples of student projects, links to external assistive software, and multimedia authored graphics. The variety of technologies in use has increased as the discipline faculty has become more comfortable with trying new instructional strategies with remote students.

Remote students have access to several support systems that have proven invaluable to the satisfaction and success of the learners.

- Online Graduate School admissions application
- Student handbook for project participants (available in text and as a PDF file on the Web)
- Toll-Free phone into the Special Education Division office
- A Webmaster who responds to individual technical problems with near 24/7 response
- CD-ROM with Web browser and style sheet options to load on home computers
- Course enrollment and program enrollment listservs (subscribers include students, faculty, and the grant team)

Lessons Learned

- Facility design of distance education learning environments (DELEs) is expensive, time consuming, and requires substantial technical, pedagogical, and academic expertise related to distance delivery of instruction.
- ID and FD (facility design) need to evolve simultaneously for DELEs that utilize multiple delivery systems/media.
- Substantial advance planning and continual project management are critical to initiatives of this scope.
- Most of the distance delivery technologies today are visual technologies; consequently there is significant attention required to specialized design and development considerations for this project and for any other distance effort that strives for equal access for disabled learners.
- Faculty introduction to and training for using these technologies for instructional purposes is particularly important to project success, learner satisfaction, and continued faculty involvement.
- Meeting individual learner needs, faculty expectations, and content requirements are not mutually exclusive in the creation of a DELE, but the process is extremely complex.

Future Directions

Federal funding ends on December 31, 2000, and the staff have applied for additional funding to continue the project and keep up with changing technology. Our next steps include technical assistance regarding online course delivery to other universities with programs in visual impairment and blindness, as well as licensing of the courses for delivery at other universities.

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FACILITATED IEP MEETINGS: TAKING SPECIAL EDUCATION BACK FROM ATTORNEYS

> *Historically, humans have found meaning in work, family, community and shared faith. They have drawn upon collective resources to do what they could not do alone. United efforts -- raising a barn, shoring a levee, rescuing earthquake victims, or singing a hymn -- have brought people together, created enduring bonds, and exemplified the possibilities of collective spirit.* (Bolman & Deal, 1995, p. 6)

It was late winter 1995. One of the authors was driving through the Mojave desert in southeastern California, headed back to her school district office in a small, rural, isolated community located on the Colorado River. As she drove, she contemplated the interviews that she had just conducted with business and educational leaders. One of the areas discussed was the concept of *customer service*. It had become blindingly obvious over the past few months that educators did not understand customer service; indeed, educators had no agreement about who their customers were, much less how to serve them satisfactorily. In contrast, each business leader knew precisely who his/her customers were (Bellinger, 1995).

In the late afternoon light as the co-author drove rapidly east on the interstate, questions surfaced. *Who were the customers of a special education director? How did one provide satisfactory service to those customers? What might happen if parents were identified and then treated as customers? How might contact with those customers look? How might an IEP meeting look different? Would it matter if customers were difficult, even demanding? How did one achieve customer satisfaction?* For the author, the shift in thinking would forever alter the way she viewed education, special education services to students with disabilities, and interaction with parents of students with disabilities.

Over the next few years, time and effort was spent on identifying customers. Exterior customers were identified clearly in federal and state law for a special education director: students with disabilities and their families. Working to achieve customer satisfaction was the struggle that has exhausted special education staff and administrators for almost a quarter century. Thus began a search for a *process* a) to improve interaction and relationships between educators and parents, so they can work in partnership for the needs of the number one customer: the student, and b) to streamline requisite meetings to improve service delivery to the exterior customers (parents and students) and interior customers (teaching and service staff).

Background

Recently, educational thinkers and introduced the important concept of clearly identifying customers for education. Schlecty (1997) discusses the significance of working with parents collaboratively to assist students in realizing their goal of achieving a quality product: knowledge work. Schlecty cautions educators to develop true partnerships, not merely viewing parents as partners only when ". . . they do what we want them to do" (p. 74). Senge (1990 & 1994) discusses the importance of developing "collegiality" in any partnership. He contends that only through colleagueship can synergy energize a group to develop new and better ideas and service. Yet, in special education, there has been no process, no programs to train educators, service staff, agency representatives, advocates, and parents to make consensus-based decisions collaboratively.

The special education landscape is littered with due process hearings, class action lawsuits, and relationships characterized by a lack of trust and suspicion. Too often for parents and district staff alike, the immediate expectation and anticipation for an upcoming IEP meeting is conflict and confrontation, rather than a multidisciplinary team approach to address the needs of students with disabilities. School districts are experiencing staff burnout in a time of an already pronounced teacher shortage. Copious amounts of public resources are being spent to rectify and modify programs for students because the IEP was developed (or *not* developed) in IEP meetings that were characterized by lack of shared responsibility and student focus.

The search for improved relationships led both authors to a small consulting and training firm, *Interaction Associates*. Interaction Associates (IA) is a consulting firm employing approximately 150 staff. They are based in San Francisco, Dallas, and Boston, and have been assisting Fortune 500 Companies for the past 25 years with training programs and strategies to enable them to achieve their business goals. Also, IA has a strong history of working with education and with non-profit organizations. In 1998, IA created a non-profit arm to work with educational agencies and non-profit organizations; it is called the *Interaction Institute for Social Change*. Early in 1998, the authors attended IA's training session on **Essential Facilitation**. They realized immediately that the techniques and strategies presented in this training were the missing techniques and tools necessary for running a successful IEP meeting.

The authors approached IA and asked them to collaborate on adapting the Essential Facilitation training specifically to meet the needs of IEP meeting participants. Not only was IA interested in such a partnership, but the organization's strong sense of commitment to the educational community led them to enthusiastically support such an effort. Over the next several months the authors met with staff from IA to design and adapt a process and accompanying training program targeting the specific meeting process needs of the IEP team chair and participants.

Process and Training

Since its inception in 1975, there has been no specific *process* or training that can be implemented to assist IEP teams as they meet to determine critical educational issues such as eligibility, learning characteristics, goals and objectives, placement, programs, and services. Education and special education experts have developed new forms, revised old ones, and created information systems to manage the flow of student records and data, including IEP information. No one has discussed the importance of the process, of the immediate and critical need for teams to develop positive relationships, working for the benefit of the child. Under IDEA 97, the need for such a process has become even more critical, due to the legal requirements to implement a collaborative process, devoid of adversarial relationships.

JDL Associates, together with Interaction Associates and its nonprofit affiliate the Interaction Institute for Social Change, collaborated and adapted the Essential Facilitation training to the IEP team process. This adaptation stresses the implementation of a compliant IEP meeting process, including the appropriate agenda and order in which specific IEP information must be addressed comply with requirements set forth in federal law.

Training participants are shown how to develop IEP agendas from specific meeting outcomes for each child. They are provided with guidelines on when it is critical and beneficial to utilize an entirely facilitated meeting process. For IEP meetings, the meeting chair is always and ultimately responsible for the meeting and its results. Sometimes, it is wise to have the assistance of a meeting facilitator when meetings are colored by certain characteristics, such as management of complex and lengthy information, the involvement of multiple agencies, the presence of an advocate, or past history of uneven feelings. Under such circumstances, it is prudent to use a meeting facilitator. While anyone can utilize the facilitation skills presented by this workshop, they are especially useful and critical for implementation by a facilitator who assists the chair in managing the meeting process.

Participants learn to utilize facilitation skills to make meetings run smoothly, efficiently, and collaboratively. Techniques such as use of ground rules and agendas are part of the training. In addition, skills and tools, such as *"Listening as an Ally"*, conflict resolution, and reconciling differences, to promote shared responsibility and collaboration are introduced, modeled, and practiced. These active listening techniques emphasize listening not only to understand, but to ensure that the speaker feels *"valued and heard*".

Participants are taught to understand the various stages of a discussion and how to use these to build small agreements throughout the IEP meeting process, all the time building a foundation for agreement as well as shared implementation of the total IEP document. Participants learn to think of multiple alternatives and solutions for problems, rather than limiting group interaction to *"them versus us."* Use of these skills results in soothed emotions, reduced stress, and shortened meetings all while building collaborative relationships between and amongst those who must implement the IEP.

Team members are taught how to remain focused on the needs of the student rather than permitting the group to be pulled off track by stressful power struggles or nonproductive emotional conflicts. Skills such as streamlining meetings and keeping irrelevant information and interaction outside the IEP meeting are also components of the training. Skills for following through and developing an action plan to ensure that the IEP for the student is implemented and supported are also presented.

The Facilitated IEP (FIEP) training is provided in either a 3-day or 4-day workshop format. The training is scheduled to coincide with the contractual day of the educational organization and to provide the training within the constraints of existing bargaining unit agreements, approximately 8:30 to 3:30. The 4-day training includes compliance units that emphasize compliance issues related to the IEP meeting and process. In addition, JDL will tailor compliance discussions to target specific areas of concern for participating districts and agencies. Another option for 4-day training is one with a more limited compliance section and additional facilitation practice. FIEP training is provided also in several 3-day formats. The same 4-day workshop can be presented in a longer day format, from 8 to 5, for example. Another 3-day option is to eliminate the compliance unit from the workshop, if that meets the needs of the participating districts. Still another option is to present a shortened version of the compliance section. The compliance component of the FIEP workshop is tailored to meet the specific needs of clients and participants.

In addition to the 3-day and 4-day workshop, trainers return at no additional cost for a seminar day for workshop participants for an additional day of support activities. The seminar day is conducted anywhere from six weeks to six months after the initial training. This is to ensure that the process will be used properly and to maximum benefit for IEP meetings. This seminar contact reduces the possibility of the *"dusty manual syndrome;"* that is, workshops where information is presented and even implemented for a short time, and then shelved for lack of support from the workshop presenters. Participants have the chance to use the new training, and then to receive coaching and support after implementation to deepen the learning provided through the initial training. Additionally, trainers are available to coach and support participants through a toll-free number, and via e-mail and website connections. JDL Associates is committed to providing services to clients and to training participants *for life*.

Additionally, there are three types of awareness workshops to support the implementation of the Facilitated IEP process. First, there is a workshop for building and district level administrators who do not participate in the entire training, but who will need to understand the process in order to work collaboratively with the IEP teams who utilize the Facilitated IEP process. Next, participants' training for selected building sites can be provided to ensure that these schools can work positively together to develop, support, and implement IEPs. There is also a parent awareness workshop, designed to present information about the Facilitated IEP process, and to ensure full parent participation, collaboration, and support.

Training is presented by 2 trainers. The training is limited to a maximum of 22 participants, and is presented for no fewer than 15. This is to ensure individualization of instructional support necessary for the participants to develop and to practice the skills presented. Training participants can include anyone who may have the responsibility to conducting IEP meetings. Recommended participants include special education and building level administrators, special education teachers, school support staff such as school psychologists and speech specialists, and parent leaders.

Results

Since January 1999, JDL Associates has provided training in **Essential Facilitation for IEP Meetings** (*Facilitated IEP [FIEP] training*, as the designers like to call it) to over 250 participants from more than a dozen districts and educational agencies. Trainings have been offered in California, northern Virginia, Florida, and Alabama. Analysis of workshop evaluations indicated that participants are overwhelmingly positive about the workshops. Participants expressed high levels of satisfaction with the training content and activities. Some participants stated that, while they did not like role playing activities, they found them to be very useful in preparing to implement training skills in real IEP meetings. Approximately 40 percent of participants indicated that this was *"one of the best"* or *"the best workshop"* they had attended. Only one participant in over 250 expressed dissatisfaction with the training.

Some participants expressed concern initially about participation in a 4-day workshop away from job demands and work responsibilities. At the conclusion of the training, all participants stated that the training was well worth the 4 days spent and that it provided very valuable and useful information. One client reported that *"for every dollar spent on FIEP training, ten dollars were saved in legal costs. . . , but I'm not sure how to put a price on improved school and family relationships."*

Clients report that parents indicate that the process makes them feel safe, and that they are seeing real collaborative and productive meetings on behalf of their children. One parent stated that, *"for the first time in eleven years, you heard me."*

Future Plans

In November, JDL Associates trained four additional trainers in presenting the Essential Facilitation for IEP Meetings. In 2000, FIEP workshops continue to be presented in California, Virginia, Florida, and Alabama. Additional workshops will be offered in Texas and Ohio.

In January, JDL Associates hired a senior associate for research and management, Dr. Nell Eano, recently retired from the Office of Special Education Programs (OSEP). Dr. Eano is conducting follow-up surveys of clients and training participants to gather data regarding the effectiveness of implementation of the FIEP process as well as continued satisfaction with training skills. Analysis of this information will be available and published on JDL websites by early summer.

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"I DO IT ALL": THE BALLAD OF THE RURAL SPECIAL EDUCATION TEACHER

Preparation of special educators to meet the needs of exceptional children in very small sparsely settled communities is a challenge to educators who are often expected to serve all children with special needs regardless of their certification. Teachers prepared to work with students with a particular disability or class of disabilities may also be called upon to also serve students with disabilities for which they are not certified. Although the hiring of uncertified teachers is universally frowned upon, many rural school districts are faced with the dilemma of meeting the needs of disabled children without the services of fully certified teachers. Some states have attempted to alleviate the problem by establishing certification in generic special education. Such certificates, however, may not require competencies in the education of students with severe to profound mental retardation or serious emotional disturbance. The purpose of this paper is to examine the makeup of the teaching force in selected extremely rural school districts who have been assigned to serve students with severe disabilities. Additionally, a discussion of the service needs of rural districts relative to these students will be undertaken. In conclusion, this paper discusses one teacher preparation program's attempt to prepare teachers for rural service will be provided.

Teacher Certification

Special education certification across the United States varies greatly as demonstrated by the following list of certificates offered by a sampling of states:

Arizona:
- Cross-Categorical (completion of a teacher preparation program in special education which includes training in mild to moderate mental retardation, emotional disturbance, learning disabilities, and orthopedically/health impaired)
- Specialized Special Education (completion of a teacher preparation in one of the following specialized areas: mental retardation, emotional disturbance, learning disabilities, or orthopedically/health impaired)
- Severely and Profoundly Disabled (completion of a teacher preparation program in severe and profound disabilities)
- Hearing Impaired
- Visually Impaired
- Speech Language Impaired
- Early Childhood Special Education (Birth to 5 years of age)

California:
- Education Specialist Instruction Credential in Special Education
- Mild/Moderate Disabilities (specific learning disabilities, mild to moderate mental retardation, attention deficit disorders, attention deficit hyperactive disorders, serious emotional disturbance, K-12, adult through 22.
- Moderate/Severe Disabilities (autism, deaf-blindness, moderate - severe mental retardation, multiple disabilities, serious emotional disturbance)
- Visual Impairment (blindness, visual impairment and deaf-blindness)
- Deaf and Hard of Hearing (deaf, hearing impaired, deaf-blindness)
- Physical and Health Disabilities
- Early Childhood Special Education

Colorado:
Special Education Endorsements
Teacher 1 (Moderate Needs)
Teacher 2 (Severe Needs - Cognitive, Affective, Vision, Hearing, (Communication)
Teacher 3 (Profound Needs)
Teacher 4 (Early Childhood Special Education)

Florida:
Exceptional Student Education Areas (K-12)
Emotionally Handicapped
Hearing Impaired
Mentally Handicapped
Physically Impaired
Specific Learning Disabilities
Speech Language Impairment
Varying Exceptionalities
Visually Impaired

Hawaii:
Specialized Areas for Special Education (All grade levels)
Special Education Mild/Moderate (specific learning disabilities, emotional disturbance, mental retardation, early childhood)
Special Education Hearing Impaired (deaf, hard of hearing)
Special Education Deaf Blind
Special Education Severe/Profound (emotional disturbance, severely multiply handicapped, autistic, mental retardation)
Special Education Visually Impaired (partially sighted, blind)
Special Education Orthopedically Handicapped

Idaho:
Early Childhood Special Education Endorsement
Standard/Advanced Exceptional Child Certification and Related Endorsements
Generalist (Educationally Handicapped noncategorical; may teach in any K -12 special education setting)
Related endorsements (serious emotional disturbance, severe retardation, multiple handicaps, physical handicaps, early childhood special education, vocational special needs)

Kentucky:
Exceptional Children Primary - 12
Learning and behavior disorders
Moderate and severe disabilities
Hearing impairment
Visual impairment
Communication disorders
Learning Behavior Disorders (LBD all grades)

Missouri:
Certificates are required in the following areas:
Early Childhood Special Education
Blind/Partially Sighted K-12
Deaf/Hearing Impaired K-12
Mild/Moderate Disabilities K-12 (behavior disorders, learning disabilities, mental handicaps, orthopedic impairments)
Severely Developmentally Disabled K-12
Speech/Language Impairment

North Carolina: Certificates are required in the following areas:
Behaviorally/Emotionally Handicapped
Cross Categorical (mild-moderate handicaps)
Hearing Impaired
Mentally handicapped
Severely/Profoundly handicapped
Specific Learning Disabilities
Visual Impairment
Handicapped/Disadvantaged (Academic Employment Network, 2000)

Ohio: Provisional Special Education of the Handicapped K-12
Developmentally Handicapped
Hearing Handicapped
Multi-Handicapped
Orthopedically Handicapped
Severe Behavior Handicapped
Specific Learning Disabled
Visually Handicapped (Tryneski, 1996)

Oklahoma: Certificates or endorsements are required in the following areas:
Mild/Moderate Disabilities (learning disabilities, mild to moderate mental retardation, serious emotional disturbance)
Severe/Profound/Multiple Disabilities (severe to profound mental retardation, multiple disabilities, serious emotional disturbance, physical impairments)
Registry training is required in order to serve children with the following disabilities:
Autism
Traumatic Brain Injury
Other Health Impairment

Oregon: Special Education Endorsements
Handicapped Learner I
Handicapped Learner II
Severely Handicapped Learner
Speech Impaired
Visually Impaired
Hearing Impaired
Elementary

Rhode Island: Special Education
Early Childhood
Elementary and Middle School
Middle School/Secondary
Severe Profound Disabilities
Blind/Partially Sighted
Deaf/Hard of Hearing

Tennessee: Special Education Endorsements
Modified Program K-12 (for students with handicaps but who can participate in the regular curriculum with adaptations and supports)
Comprehensive Program K-12 (for students with handicaps whose early focus may be on basic skills but whose later years will focus on vocational or independent living skills)
Vision PreK-12
Hearing PreK-12
Speech/Language PreK-12
Preschool/Early Childhood PreK-1

Utah: Special Education K-12
Mild/Moderate Learning and Behavior Problems
Severe Learning and Behavior Problems
Hearing Handicaps
Visual Handicaps

Vermont: Teacher of the Handicapped
Essential Early Education Classroom or Home Program
Intensive Special Education Classrooms or Multihandicapped
Special Education Class Programs/Resource Teacher Programs
Secondary Diversified Occupations Program

Wyoming: K-12 Endorsements
Exceptional Children generalist
Behaviorally Disordered/Emotionally Disturbed
Learning Disabled
Mentally Retarded
Hearing Impaired
Vision Impaired (Tryneski, 1996)

Although several states have requirements for generic or cross-categorical certificates, many still maintain requirements for specific disabilities. The need for teachers who are able to provide support for a broad range of disabilities in rural communities may be thwarted by a continued emphasis on specialized certification requirements. Turnbull, Turnbull, Shank and Leal (1999) suggest that rural school districts face rather daunting challenges to the provision of educational services for students with severe to profound and multiple disabilities in least restrictive environments. Schools with limited resources, such as those in extremely small rural districts, may not have the luxury of utilizing the full continuum of services when implementing an IEP. Also, a district's philosophy relative to special education may relate directly to the availability of resources (Davis, Kilgo & Gamel-McCormick, 1998).

Cates and Smiley (1999) suggest that rural special education programs could benefit by subscribing to principles which include team teaching, use of distance learning and the internet, peer tutoring and Service Learning, student collaboration in extracurricular activities, maintenance of close contacts with the medical community, and integrating with the family support system. Although teachers and administrators may have good intentions, limited skills in multiple disabilities and severe to profound mental retardation could result in frustration and difficulty in following through with collaborative measures. The question of a small rural district's preparedness to provide services to children with severe disabilities in least restrictive settings hinges upon the teaching staff's ability to make the necessary accommodations to ensure access to the curriculum. Teacher preparedness is measured by an individual's ability to meet a state's certification requirements. If a rural district chooses to educate a student who is multiply disabled or is severely to profoundly mentally disabled, are the special educators involved certified to provide appropriate intervention? This question is part of the research designed to examine the services being provided to children and youth with severe to profound mental retardation and multiple disabilities in extremely small rural school districts in Oklahoma. The authors of this paper have been involved in ongoing research to determine the nature of services being delivered to these students and possible solutions to the problems they face trying to comply with the spirit of the Individuals with Disabilities Education Act (IDEA).

Rural Districts Attempt to Meet Needs

Given that students with multiple disabilities and severe to profound mental retardation have deficits in most areas of life functioning (Snell & Brown, 2000, Cipani & Spooner, 1994, Orelove & Sobsey, 1996), administrators in districts with limited resources might consider carefully the credentials of potential special educators. Because of the growth of interest in placing students with multiple disabilities and severe to profound mental retardation in inclusive settings (Lehr, 1996; Ferguson, Willis, & Meyer, 1996), rural districts have been faced with difficult decisions concerning least restrictive environment options.

As an extension of previous research involving school districts in the southwestern portion of Oklahoma, the authors of this paper queried school personnel in all of the school districts of Oklahoma which have a population density of less than eleven people per square mile. The number of special education teachers in these latter districts ranged from .2 to 7. The special education student population of the districts averaged 12.5%. Although some of the districts sent students with severe disabilities to neighboring school districts or special education cooperatives, most attempted to educate the students at home. Ninety-six percent of the special education teachers in these districts hold certificates in either learning disabilities, mental retardation, or emotional disturbance. Thirty-two percent of respondents hold certificates in learning disabilities, mental retardation, and emotional disturbance. Forty percent of the respondents had Registry training in multiple disabilities and an additional 6 percent were completing their training. Many of the teachers questioned stated, "I do it all." Because certification has been categorical, these teachers have had to complete additional training beyond their initial special education programs. Despite the fact that certification across disability categories was not required for employment in most districts, teachers have sought additional training in order to ensure that appropriate services are provided.

Many teachers indicated that services for students with multiple disabilities and severe to profound mental retardation are delivered in inclusive settings. Whether this is out of necessity or based upon a philosophy of inclusion was not ascertained. Most of these teachers suggested that a close community connection was an important aspect of their ability to serve these students appropriately. The initiative taken by special educators in these rural districts may serve as a stimulus for developing teacher preparation programs for other rural regions. To prepare teachers to meet the needs of all disabled students in extremely small rural districts, the authors of this paper believe university programs must reexamine the structure of their curricula which are based largely on categorical and semi-categorical formulae. Special education teachers with adequate preparation in all non-sensory disabilities are in great demand in Oklahoma. Addressing this need will mean combining certificate programs to transcend categories set by this state.

Teacher Preparation

The special education teacher preparation program at Cameron University is designed to prepare students to add endorsements in mild/moderate disabilities and severe/profound/multiple disabilities to elementary, early childhood, or secondary certificates. Students must complete 21 hours of coursework in addition to student teaching. In addition to courses in assessment, foundations, characteristics, and behavior management, students are required to complete teaching methodology courses in emotional disturbance, mild/moderate disabilities, and severe/profound/multiple disabilities. Following graduation, students may return and complete a practicum course in the certificate area in which they did not student teach. The philosophy of the faculty in the special education program at Cameron is that students will be better prepared to serve as special education teachers in rural districts having been provided with a background in teaching methodology covering all non-sensory disabilities except other health impairment, autism, and traumatic brain injury.

Students who enter the program at Cameron recognize that the additional methods course will benefit them should they seek employment in one of the more rural districts. Although most of the students at Cameron are seeking certification in mild/moderate disabilities, they are rather enthusiastic about experiencing the full range of disabilities as part of their preparation.

Conclusion

The reality faced by most special education teachers in extremely small rural districts in Oklahoma is that they are likely to have to serve students with disabilities for which they are not certified. Because these districts have limited resources and are not able to hire additional specialists, and because parents are increasingly pushing for education in local inclusive settings, special education teachers must make decisions relative to their willingness to remain in under these conditions. A sizeable percentage of those who do enhance their ability to teach a wide variety of disabled students. Teacher preparation programs and state departments of education should not ignore this desire to improve. The authors conclude that an endorsement program in rural special education needs should be given strong consideration.

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PERSONNEL PREPARATION AND SERVICE DELIVERY ISSUES IN RURAL AND REMOTE AREAS: BEST PRACTICE INFORMATION

Teacher Education Issues

Delivering quality educational programming in rural settings has always posed challenges to students, their families, and service providers. Providing appropriate educational services to children and youth with disabilities in these settings presents many additional challenges. For example, economic and social difficulties, such as lack of financial resources to support educational services and poverty among the area residents, are also often part of the rural picture. In addition, geographic barriers such as mountains, lack of paved highways, and large distances between cities and towns intensify these difficulties. Indeed it is these difficulties, among others, that make implementing a comprehensive teacher education program in rural areas more difficult to achieve. Without the proper preparation, personnel who are crucial to the effective implementation of the Individuals with Disabilities Education Act of 1997 (IDEA) will not be available to provide the needed services to students with disabilities in both special and general education classrooms.

The IDEA of 1997 mandated that students with disabilities receive their education with non-disabled peers to the maximum extent appropriate. More than 68% of the 5.6 million children and youth, ages three through twenty-one, currently identified as having a disability are being taught in general education settings. According to the 20th Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act, "in 1995-96, more than 95% of students with disabilities, ages 6 though 21, attended schools with their non-disabled peers." (U.S. Department of Education, 1998, p.III-34). Approximately 45% of these students spend 80% of their entire school day in general education classes and another 24% of students with disabilities are enrolled in general education settings between 21% and 60% of their day (U.S. Department of Education, 1998).

For special educators, inclusion of students with disabilities in general education classrooms requires skills in effectively interacting with other professionals and sharing responsibility for students once considered the domain of special education alone. For general educators, inclusion of students with disabilities in their classrooms requires active participation in the development and implementation of programs for students with disabilities and an increased willingness to open their traditionally private classrooms to special educators. Additionally, providing quality programs for students with disabilities in general education settings requires a knowledge base from which to make the decisions about the development and implementation of the student's Individualized Education Program. Including students with disabilities in general education classrooms, therefore, creates a need for communication, coordination and collaboration among a total school staff, as well as other stakeholders such as community agencies and the business community, to enable them to implement responsible inclusion with the necessary array of programs, services, and supports.

Moreover, states must devise incentives, including financial incentives and quality personnel preparation activities, to attract and retain their teachers. Providing educational services to students with disabilities in general education settings calls for a "shared ownership" approach to meeting the educational needs of students with disabilities by general and special educators. In reality, this partnership is requiring that many general educators assume an increased responsibility for students with disabilities in their classes without the concomitant personnel preparation and effective support systems necessary to do the job. For both special and general educators, inclusion of students with disabilities in general education classrooms requires collaboration and communication skills and competencies that often neither has mastered.

In 1994, The National Council on the Accreditation of Teacher Education (NCATE) suggested that local, state, and federal policies be aligned in order to have a seamless system of professional development from recruitment to retirement, with effective, collaborative partnerships that lead to high standards of teaching (Darling-Hammond, 1994). In 1996, the bipartisan National Commission on Teaching and America's Future, in its report entitled "What Matters Most: Teaching for America's Future," cited teacher preparation among a number of deficiencies affecting teaching and learning in America's schools and issued a call to recruit, prepare, and support excellent teachers for every school (National Commission on Teaching and America's Future, 1996). President Clinton, in his January, 1999 State of the Union Address, presented an education agenda that addressed the critical need for teachers to be prepared to serve all students in terms of both quantity and quality (Clinton's State of the Union Address, 1999). Secretary of Education, Richard Riley, in his 1999 State of American Education Address, stressed the need for greater attention to be paid to teacher education and issues of teacher quality (Riley, 1999).

These calls for improved teacher preparation can be seen as a response to numerous statistics recently published. For example, the annual 1997 Education Week/Pew Charitable Trusts Report on Education in the 50 states indicated that Schools of Education in institutions of higher education are not currently producing teachers who are qualified to educate America's children and youth (Quality Counts, 1997). Moreover, a shortage of teachers who are fully certified to teach in their field continues (Quality Counts 2000), and the number of teachers fully certified to teach students with disabilities is decreasing (For IDEA, states rely on fewer teachers, 1998).

In addition, fewer than 20% of teachers working with students with disabilities believe they are well prepared to meet the needs of these students (U.S. Department of Education, 1999). Data on teacher educators in rural areas is equally as dismal. According to the American Council on Education (1999), teachers avoid high-poverty schools and schools in high poverty areas, whether inner city or rural, have the highest number of unqualified teachers. In addition, Westling and Whitten (1996) found only 57% of rural special educators planned to still be teaching in rural areas within five years.

Lack of appropriate credentials for teachers of students with disabilities in states with rural and remote settings are exacerbated by the economic and geographic constraints that limit access to teacher preparation programs. In fact, many rural states are experiencing severe economic hardships which have impacted on teacher training programs and reduced funding for the educational training and support to teachers new to special education and/or to persons working in areas for which they have not received formal training. Providing an appropriate education for students with disabilities with the necessary programs, supports, and personnel continues to be a real challenge to all schools, but particularly those in rural or remote settings.

Poverty

Poverty is another major issue for many rural states, and recent data is confirming the relationship between poverty and disability. The 19th Annual Report to Congress (U.S. Department of Education, 1997) confirmed that the average number of children who experience poverty in this country increased from 15% to 19% over the past 25 years, whereas the overall rate of poverty has remained somewhat constant at 12%. The connection between poverty and educational needs has been documented, as has the connection between poverty and special education needs. Fujiura and Yamaki (2000) report data from the National Health Interview Survey (1983-1996) that indicate a significant increase in childhood disability rates and report that "increased risk for disability was among constituencies defined by poverty and single parent families" (p. 187). The effects of poverty are cumulative. Children of poverty frequently have lower birth weights, experience more developmental delays, and nutritional deficiencies, lack adequate medical care, are more at- risk for learning and behavior problems, and are more likely to develop vision and hearing impairments. Children from poverty situations miss more days of schools, have a higher incidence of illness, have less opportunity to participate in early childhood education, are lower achieving than their non-poverty peers, and are more likely to drop out of school (Sherman, 1994). The combination of poverty and these additional factors are predictive of the need for special education services.

Description of the Study

With the dilemmas of poverty, lack of fiscal resources, and geographic constraints, what are some of the solutions for teacher preparation that will prepare teachers and other service providers to meet the requirements of the IDEA of 1997 and attract them to rural communities? How does a quality teacher education program meet the needs of student teachers who are hours and miles away from the program? How do teacher preparation programs assure the provisions of IDEA 97 are fully implemented in rural areas?

Method

In the Fall of 1999, we began to explore possible answers to the questions above. The principal investigators asked 166 members of ACRES to complete a survey concerning (1) personnel preparation, recruitment and retention and (2) service delivery and implementation issues in rural and remote areas. The purpose of the survey was to gather first hand information on teacher preparation and the status of service delivery issues for students with disabilities who reside in rural and remote areas. The work actually began in 1998 during the presentation of key components of the IDEA of 1997 and their impact on service delivery in rural areas during the annual ACRES conference in Charleston, SC. During the 1999 annual ACRES conference, the investigators formulated the idea of surveying the members to gather more reliable data than the previous conversational data during the presentation on practical strategies for meeting the requirements of the IDEA. In May 1999, the researchers contacted an ACRES board member for names of members who would be possible participants in the study. During the summer of 1999, the survey instrument was designed for the collection of data. The survey was reviewed for face validity by two colleagues in the field prior to dissemination.

The survey was mailed to the 166 respondents in October 1999. With a twenty-five percent response rate, the initial mailing was followed with a fax and telephone call to the non-respondents in December 1999. A second mail-out to non-respondents was conducted during January 2000. At present, the response rate is 45%. We currently are awaiting final submissions prior to conducting the final data analysis.

Preliminary Results

The descriptive data section of the survey requested information such as the position of the respondent and whether the respondent was working in a rural or remote setting. For respondents involved in a personnel preparation program, the survey queried whether the program offered was for general, special, or a combined program for special and general educators. The survey also requested the number of students enrolled and the type(s) of degrees conferred. The survey also asked for a description of the individual's role if s/he were working within a school district.

The data for the section on respondents were analyzed by frequency count. While the majority of the respondents were teacher educators in institutions of higher education, the role of respondents included state education agency personnel, national clearinghouse personnel, school principals, special education directors, and staff development personnel. When queried about the type of setting, rural or remote, in which they worked, the majority of respondents are working in rural rather than remote areas. Involvement in personnel preparation programs was delineated into three categories: 1) combined general and special education programs, 2) general education only programs, and 3) special education only programs. While the majority of the responses indicate that the teacher preparation programs are primarily for special educators only (41%), combined general education/special education programs are reported at similar levels (38%). Approximately ten percent of the respondents did not reply to the question.

The final section of the descriptive data portion of the survey requested enrollment data, program data, and certification data for personnel preparation programs. These data are limited due to the 40% non-response in this category, but the non-respondents were easily paired with the survey participants who are not directly involved with programs at institutions of higher education. The data gathered indicated that the number of students enrolled in teacher preparation programs ranged from 30-400. One respondent indicated an enrollment of 725 students with all students being matriculated part-time. The course/credit hour requirements for granting certification varied based on whether or not a teaching certificate was already held by the student. If a teaching certificate were held, the requirement for certification in special education ranged from 18 credit hours to 36 credit hours. If certification was not currently held by the student, the range at the post baccalaureate level was between 54 and 60 credit hours of graduate study in order to obtain certification. Thirty-eight percent of the respondents reported having a bachelor's degree and requiring from 120-130 credit hours of study in order to become certified in special education. Fifty-three percent of the respondents reported offering a Master of Education degree, with an average of 36 credit hours required for degree and certification. Twenty-one percent of the respondents reported offering doctoral degree programs that required between 60-90 credit hours of study.

The second major section of the survey asked the respondents to rank order statements concerned with personnel preparation issues in light of the new requirements of the IDEA of 1997. This section of the survey attempted to determine strategies used in teacher education programs to ensure teachers are prepared to implement the requirements of the law. Additionally, questions concerning the professional development of the teacher educators involved in preparing teachers for rural and remote areas were asked. Barriers to receiving and delivering the professional development necessary for high quality teacher preparation were explored. The third section of the survey asked respondents about potential issues involved in personnel recruitment and retention in rural and remote areas. Data concerning shortages in personnel and the recruitment and retention strategies being employed to alleviate such shortages were collected. The fourth section of the survey gathered information regarding service delivery and implementation issues. Questions about the participants' involvement in the State Improvement Grants and the challenges faced by their school districts in implementing the requirements of the IDEA 1997 were asked.

The data for the second, third, and fourth sections of the study are currently under review and will be reported at the ACRES conference in March 2000. As indicated, the principal investigators are awaiting responses from the final mail-out.

Discussion

While the data in this study are still under analysis, the researchers suggest the following preliminary conclusions. Respondents indicated that both challenges and opportunities exist when attempting to deliver services to students with disabilities in rural and remote settings. Even more challenging is the delivery of high quality preparation needed for the personnel who will deliver the necessary services. In rural settings, additional resources for educating personnel in areas such as crisis intervention, social work, psychology, counseling and parent counseling are all needed, yet appear not to be readily accessible. While the data show that the majority of personnel preparation takes place through institutions of higher education, state departments of education and local education agencies also need to be involved in this personnel preparation initiative. Reciprocal certification requirements across states as well as across institutions of higher education would make it easier for personnel to become certified in special education while working in rural and remote areas. Strategies using distance education techniques, such as on-line conferences, internet courses, reading groups, public television presentations, e-mail correspondence, teacher talk networks, course modules, and other distant delivery models are paramount in providing effective personnel preparation and educational services. The hiring of consultants also needs to be in place so faculty members can remain current in their knowledge base and thereby produce highly qualified and well prepared personnel to serve students with disabilities. Challenges of distance, lack of materials and lack of professional growth opportunities can be overcome with aggressive recruitment and retention packages, satellite coursework, and allocation of travel time and money to conferences, and the provision of time during the day to consult with other personnel. Networking and strong collaborative programs such as wrap-around programs need to be in place in order to provide the program, services, and supports needed for both the service providers and the students with whom them work.

As we continue to review the data collected through this survey, specific strategies for addressing the barriers faced in personnel preparation and service delivery will be identified. Delivering quality personnel preparation programs in rural and remote settings and preparing the practitioners to do so has always posed particular challenges to teacher educators. The principal investigators anticipate that the data collected from those who are engaged in this endeavor will illuminate particular insights as to how to accomplish these goals. With this data, the field will be closer to realizing the goals of providing quality programming that results in improved educational outcomes for students with disabilities residing in rural as well as remote areas of the country.

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PROVIDING INSTRUCTIONAL VIDEOS FOR CLASSROOM USE ... AND THEN SOME (FACILITATING INCLUSION VIA VIDEO)

Have you ever had a conversation with an individual who explained an experience in great detail and you just could not picture what they were talking about? Then, in response to the baffled look on your face, they said: "I guess you had to be there." Have you had a person attempt to explain a technique you just could not picture until seeing it in action? Over the years we have felt that many of our students were in this predicament, unable to grasp concepts and strategies no matter how many classroom discussions took place or how much they read about the content. Or maybe even worse, if there were 30 students then there might be 30 different visions in the room, 31 if you included the instructor. This was especially frustrating when attempting to teach pedagogical content. How to enhance instruction became our personal crusade. What means will promote a shared experience that can be used to enhance the learning experience for students? Our response was to develop video to help students construct more accurate mental models of innovative inclusive schooling best practices (Barron & Goldman, 1992; Hasselbring, Goin, & Bransford, 1991; Cognitive and Technology Group at Vanderbilt, 1996)). The videos produced focus on providing specific examples of concepts and strategies designed to plan for and implement inclusive schooling practices (Miller, 1999). We strongly feel the video serves to anchor the learner's experience in real world applications (Bottge & Hasselbring, 1999).

In this paper we will describe the process used to produce the instructional video. Two very practical and innovative approaches to inclusion are briefly discussed as well. The first approach we call a "developmental approach" to instruction to facilitate inclusion. The second approach is referred to as a "diagnostic inclusion" approach to assess student performance.

The teachers and inclusion approaches highlighted are from a rural school district in Preston County, WV. Faculty from the West Virginia University in cooperation with Discover Video Productions from Morgantown, WV produced the video. It was created in conjunction with a personnel preparation project to train rural special and general educators in inclusive schooling best practices.

Video Development Process

Identify content and key players. The first step was to brainstorm possible content that would enhance the learning experience of the students we were training. One method for accomplishing this task is to identify and select potential lessons that would benefit from media enhancement (Howles & Pettengill, 1993). Our goal was to bring as much of the classroom to the students as possible. We sought to capture innovative approaches to inclusion. While bringing teachers into our classroom to explain how what they do has merit, we felt that our students would be well served if they could view exemplary teachers in action. It was at this time that we also decided to use only teachers in videos. Authenticity was a very important consideration. The next step was to locate practicing teachers who were already implementing innovative inclusive schooling approaches in our local rural communities. Project personnel began to informally survey various administrators and teachers to develop a pool of potential teachers to include in the video. Ultimately the teachers selected for the video were identified via a university supervisor who was in the field supervising students during their practicum experience.

Determine method for video taping and funding. Though we had extensive training in video shooting and editing, we decided to seek external funding to hire a professional production company. Fortunately we were successful in obtaining grant funds to produce an inclusive schooling best practices instructional video series that would be of high quality.

Secure permission. The next step involved securing permission from the school district superintendent, principal, teachers, and parents. This turned out to be a somewhat timely process. Several meetings were required to work out details such as what to do with students who failed to produce signed permission forms from their parents.

Storyboard the video. The storyboard provided the blueprint for the project. (Howles & Pettengill, 1993). In essence it helped us determine and solidify the scope and sequence outline for the video content. For us the storyboard clarified the type of video we need to best represent each teaching approach. During this time period it was necessary to consult with the production company on several occasions. The storyboard helped communicate our ideas with the production company. Feedback obtained early on via the use of the storyboard helped to alleviate the need for more costly revision later. Our experience has taught us that the more prepared at this stage the less cost and time required later.

Create scripts for interview questions. The shell for the instructional video was created in the storyboard development process. Details were needed to further clarify footage requirements. This resulted in creating questions that would serve to set the stage of the video. We determined what needed to be explained to maximize learning and potential use of the information presented. Again authenticity was important. Thus we developed potential questions to guide the teachers as they provided details to supplement the video.

Scout location for shooting. This is the stage at which technical knowledge is tested. Background noises that may interfere with sound quality need to be identified along with plans to minimize interference. For example, the air conditioning unit noise in one of the classrooms was extremely obtrusive. We met with the principal and maintenance personnel and developed a plan to film in the morning. This allowed the opportunity to turn off the air conditioning unit while we were taping classroom footage. We also took time at this stage to familiarize the students with the filming process that would be taking place in their classroom. Students were provided opportunities to ask questions. Expectations were clearly stated to the students as well. We also met with the teachers and provided some clothing tips regarding colors to enhance their appearance on film. We scouted for electrical outlets, potential camera angles, and lighting needs.

Secure dates and time. This was not a problem when it came to obtaining classroom footage. We had to shoot film when the students were in class. We did find it necessary to work with the teachers to identify the best dates to obtain video. We wanted footage that accurately represented their particular inclusion approach. The teachers provided a lesson plan one week prior to the taping day(s).

Shoot the classroom. It is crucial to know what you want when shooting classroom footage. When you employ a production company you only get one opportunity at this stage. There is not an opportunity to stop and start instructional lessons over and over. You will capture what occurs in the natural teaching environment. Thorough preplanning for the event is crucial. This is the time you will learn if you did your homework, including prepping the teachers and students.

Shooting the interviews. The filming of interviews required several more hours than we had planned. Our advice here is plan for a longer time than you might estimate at first. Use this opportunity to revise the interview scripts making sure to address the classroom footage. We chose to interview after obtaining the classroom footage and recommend this procedure. This provided the opportunity to anchor the interviews with common experiences captured on tape.

Editing. After all the pieces were assembled, the next step involved selecting footage and putting the video together. The videos were digitized and time coded. The process required a great deal of time. The well-developed storyboard is of great assistance during this stage of production. Final touches included graphics and transitions from one scene to the next. Again, we closely worked with the Discover Video Productions to obtain technical assistance as required.

Inclusion Approaches Captured On Tape

Developmental. The developmental approach highlighted in the video combines a Kindergarten class with primary level (K-3) students with special needs. The teachers develop creative thematic units that incorporate State Learning Standards at the K-3 grade level along with IEP goals and objectives of students with disabilities. The teachers plan instruction based on individual teaching strengths. In the video segments, the special education teacher addresses math and science concepts while the general education teacher focuses on language art content. In the planning and teaching process there is a lot of give and take on the part of each teacher. Convergent thinking is viewed as a key in the development of their successful working relationship.

Diagnostic. The diagnostic inclusion approach is portrayed in a Grade 6 Language Arts class. This approach is used to determine instructional strategies to include on an IEP as well as the placement option for Grade 7. The teachers began the process by securing the required permission of school administrators and parents. The experience began slowly by including only four students with learning disabilities. Students were previously in a self-contained program for language arts. Initially the teachers implemented the diagnostic approach to gain information on how the students with learning disabilities would perform in a general education classroom without modifications. The teachers were interested in the ability of the students to generalize learning strategies previously presented in their self-contained classroom. After a few days the special education teacher began to take a more active management role by helping all students become more organized. Gradually over the course of three months the teachers allowed the co-planning and co-teaching process to evolve into a very effective instructional program. Typically the general education language arts teacher presents the content with the special education teacher supplementing lessons with strategies that have positively impacted all the students. However, there are plenty of planned and unplanned interactions between the teachers throughout virtually every lesson.

Final Thoughts

This paper describes some first hand experiences in the production of an instructional video series. The need to document and disseminate effective inclusive schooling practices is well reported in the literature. Part of this paper focused on one method (videotapes) to accomplish this goal. Advice and guidelines offered are based on real experiences (good and bad). The inclusion approaches highlighted are supported by the documented success of the students in the respective classrooms, as well as teacher observation. Inclusion approaches were designed and implemented by rural teachers. Though the teachers were not in administrative posts, their leadership in the development and implementation of the innovative inclusion approaches demonstrates how teachers through creativity and dedication, do make a difference for children. We feel fortunate to present two sets of such teachers in the video.

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RURAL CHALLENGES IN MEETING CEC-NCATE STANDARDS FOR PERSONNEL PREPARATION

Meeting CEC-NCATE standards is crucial for teacher training programs to assure quality, uniformity of best practice, and greater likelihood of access to needed resources. The purpose of this session was to discuss and outline current concerns which may impact rural colleges and universities and the systems they serve in attempting to meet these standards. Data generated from audience input will be synthesized and a position paper generated which may be shared with CEC-NCATE. If concerns exist, the intent is to communicate recommendations to the Assistant Executive Director for Professional Standards and Practices/CEC Headquarters which assure quality yet considers the complex and unique challenges faced by rural teacher preparation programs.

This presentation was based on information derived from What Every Special Educator Must Know, 1998, Reston, VA; CEC the current professionally recognized standards upon which special education personnel preparation program are reviewed and accredited. It was believed that similar barriers which are unique to rural special education service delivery also impact on the ability of rural colleges and universities to meet these current standards. Beliefs and assumptions about this process include:

1) The assumption that the system of validating national standards is one that is continually subject to review and modification, and that CEC-NCATE is receptive to ACRES membership input.
2) The assumption that rural colleges and universities have had little formal input into the CEC-NCATE validation process.
3) The belief that there are uniquely rural issues which are not addressed in the current CEC-NCATE processes.
4) The assumption that rural colleges and universities have difficulty in meeting current standards and verification of quality through folio preparation.
5) The belief that ACRES is in the best position to develop and forward uniquely rural concerns and possible solutions to CEC-NCATE in the hopes that professional standards are responsive to the unique characteristics of rural teacher preparation programs.

A panel introduced five themes which served as talking points for audience discussion and input. These five themes, the talking point presenters and accompanying questions for audience discussion and input were as follows:

1) Recruitment and Federal Incentives

Dr. Bob Gilmore, US Department of Education, Office of Special Education Programs, Personnel Preparation provided an overview of the federal government's role in rural special education personnel preparation, the past, present and future. The ability of rural programs to increase recruitment to meet pervasive teacher shortages in rural systems is tied to their ability to provide quality programs. Currently, the quality of programs are measured by the meeting of CEC-NCATE Standards.
Questions posed to the audience for small group discussion were:

a) At what rate do rural special education programs apply for federal funding?
b) Are rural programs at a disadvantage in accessing federal resources if they are not CEC-NCATE approved?

c) Do they perceive their ability to access federal resources as a disadvantage if they are not CEC-NCATE approved?

2) Federal, State, and Local Congruence in Meeting CEC-NCATE Standards

Dr. Margie Crutchfield, CEC, Program Specialist for Accreditation and NCATE Program Review Coordinator discussed the history of the validation of competencies including the common core and addition of curriculum referenced to previous categorical framework competencies. Characteristics of programs who receive accreditation and those who chose not to participate was provided.
Questions posed to the audience for small group discussion were:

a) Why does your program choose to participate in CEC-NCATE accreditation?
b) Why does your program choose not to participate in CEC-NCATE accreditation?
c) Is there congruence between your state's accreditation and CEC-NCATE's current requirements?

3) Program Competency Infusion versus Course Separation

Dr. Diane Montgomery, Special Education, Oklahoma State University provided talking points based on the assumption that small, rural special education programs infuse CEC-NCATE competencies into coursework at a greater rate than other programs. Competencies dealing with diversity, technology, and collaboration are most likely to be infused rather than presented in separate courses.
Questions posed to the audience for small group discussion were:

a) Do small, rural programs infuse these and other competencies at a greater rate than other programs? Why?
b) Which practice (infusion or course separation) better meets the needs for rural special educators?
c) Which approach is perceived as advantageous for CEC-NCATE folio preparation?
d) Which approach is more likely to be approved?

4) Multicategorical versus Categorical Program Verification

Dr. Barbara Ludlow, Special Education, West Virginia University presented talking points on logistical and pragmatic issues that rural special education programs may experience in preparing for accreditation. Because of size, location, and rural needs it is presumed that rural programs can better serve local needs through a multicategorical program configuration.
Questions posed to the audience for small group discussion were:

a) Do rural special education programs use a multicategorical approach to program development more than other programs?
b) Does a multicategorical program address rural needs better than a categorical program?
c) Do the new curriculum referenced frameworks do this?
d) What are the logistical issues in folio preparation in categorical or multicategorical program competency verification?

5) Field, Practica, and Student Teaching Standards

Dr. Marta Roth, Special Education, Ohio University presented concerns regarding required qualifications for supervisors of student teachers, required procedures for site and cooperating teacher verifications, and size of administrative unit, location, and distance as barriers to verification of quality of field and student teaching experiences.
Questions posed to the audience for small group discussion were:

a) Do location and distance to field, practica, and student teaching sites pose barriers to compliance with current standards?

b) Do small, rural programs operate independently in selecting and monitoring quality of field, practica, and student teaching?

c) Does size of program hinder meeting current requirements? Or, are they part of a larger administrative body under which they have little control?

d) Do rural programs more likely use informal channels to select quality sites and personel than formal mechanisms?

Audience discussion and comments were solicited and recorded. Next steps were outlined. Individuals were identified who wished to continue the discussion with an interest in developing a position paper to be presented to the ACRES board and membership with the intent to share with CEC-NCATE.

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SERVICE-LEARNING IN PRESERVICE SPECIAL EDUCATION: A COMPARISON OF TWO APPROACHES

Service-learning has been defined as "a form of experiential education in which students engage in activities that address human and community needs together with structured opportunities intentionally designed to,promote student learning and development" (Jacoby,1996; p. 5). A primary goal of service-learning is to promote civic responsibility and social justice through authentic experiences which, in turn, lead students to become critical thinkers and activists. Well-structured service-learning experiences have the potential to help students develop a greater understanding of the social conditions that are faced by others. Boss (1994) maintains that not only does community service improve sensitivity to moral issues, but it also helps students overcome negative stereotypes that often act as barriers to interacting with others.

As professionals in the field of Special Education, we have a responsibility to educate the general public in order to create an informed citizenry that will support the needs, and basic civil rights of all individuals, particularly those with disabilities. This is especially critical today as we strive to create a more inclusive society. Jacoby (1996) supports this belief stating that institutions of higher education share a common goal "to teach individuals to live peacefully and productively in communities that value persons of different races, genders, physical and mental abilities, religions, class backgrounds, and sexual orientations" (p. 22). Service-learning, with its emphasis on reflection and reciprocity, is one means by which higher education can strive to accomplish that goal.

Over the past decade, service-learning as a pedagogical approach for increasing social responsibility in students has continued to gain acceptance in higher education. Based on a recent review of the literature, it appears that service-learning is fairly new to the field of special education at the higher education level. Therefore, little is known as to what constitutes "best practice" in this area. The purpose of this paper is to report the results of an investigation that compared the use of two approaches to service-learning in an undergraduate human exceptionalities course.

Method

Service-learning programs, by nature, are people-orientated in that much emphasis is placed on individualizing experiences for participants, therefore, no two individual experiences will be exactly the same. For this reason, Whitham (1990) advocates the use of a combination of techniques, preferably quantitative and qualitative, as a means of triangulating the data in order to provide the clearest picture possible of the program's effects. Whitham maintains that there are several benefits to using multiple measures in service-learning research. First, she states that we are often trying to "measure the unmeasurable." For example, how can we really be sure that the service experience resulted in greater motivation to attend class or to study harder? Through the use of multiple sources we can at least present a mass of data that may show evidence indicating trends toward a positive (or negative) direction. Second, since most service-learning programs are not standardized and we have little control over the experiences our student will have, things we did not plan or anticipate may occur. The use of multiple measures will increase our chances of discovering unexpected outcomes from the service experience. Third, the utilization of multiple measures will provide the most complete picture of the program and its effects.

Research Design

This investigation was conducted during the Spring 1999 semester at a large Research I University located in the Intermountain West. Participants were recruited from two sections of an undergraduate Human Exceptionality course that has been officially sanctioned as a service-learning course. Each section of the course was designated as a treatment group.

To ensure that the quality of instruction was similar across the two conditions, the following counterbalancing steps were taken: (a) instructors from each section met regularly and guest lectured in each others' class, (b) the same textbook was used, (c) the same guest speakers were used, and (d) the same teaching assistant facilitated class discussions and provided written feedback on the students' reflective journals.

Unlimited-Choice Treatment Group. The first course section was designated as the "Unlimited-Choice" treatment group, in which the students were required to develop and implement a service-learning project on their own following general criteria provided by the instructors. Students were instructed to identify and contact an agency or individual with whom to engage in a service-learning experience and then to write up a proposal detailing (a) who would be involved, (b) what service to be provided, (c) where the service would take place, and (d) when the service would be provided. Instructor approval was required prior to implementation.

Limited-Choice Treatment Group. The second course section was designated as the "Limited-Choice" treatment group. Students in this section were given a choice between three prearranged service sites in which to fulfill their service-learning requirement. The three service-learning sites included: Camp ABC*, a non-profit organization dedicated to providing year-round recreational opportunities for individuals of all ages and disabilities; Neighborhood Preschool*, a non-profit organization that provides day care services for children from mainly low-income, single parent families; and Happy Valley School*, a public school facility for students with severe disabilities. Representatives from each agency made a brief presentation on the first night of class to describe the purpose of the agency, the populations served by the agency, and the nature of the service that students would be asked to perform.

Participants

Unlimited-Choice Group. In the Unlimited-Choice group (N = 13) 85% of the participants were female (11/13). The average age was 25.5, with a range between 20 to 40. The majority (77%) were juniors and seniors. All reported being employed, working an average of 29.1 hours per week. Only 17% reported being married, and 33% reported that they had taken a previous service-learning course. The following majors were identified: psychology, communications, sociology, family and consumer studies, early childhood development, occupational therapy, and speech and hearing.

Limited-Choice Group. Approximately 69% of the participants in the Limited- Choice group (N = 16) were female (11/16). The average age was 24.9, with a range between 18 to 42. The majority (75%) were juniors and seniors. Approximately two-thirds reported being employed, working an average of 31 hours per week, 42% reported being married, and 50% reported having taken a previous service-learning course. Reported majors were similar to those identified in the Unlimited-Choice group.

Participants from each group were asked to complete a pretest and posttest of the Scale of Attitudes Toward Disabled Persons [(SADP); Antonak, 1981]. The SADP is a measure of global attitudes toward people with disabilities as a group. The 24-item summated rating scale requires the respondent to rate each statement on a six-point scale (-3 to +3). Centile norms for the SADP reported by Antonak and Livneh (1988) indicate that a score of 123 is at the 50th centile for respondents in the 19-34 age group and at the undergraduate college level.

A total of 8 students in the Unlimited Choice Group completed the pretest, with a mean group score of 117. Thirteen students completed the posttest, with a mean group score of 119. A total of 15 students in the Limited-Choice Group completed the pretest, with a mean group score of 115. Sixteen students completed the posttest, with a mean group score of 117. Results from a Mann-Whitney U-test suggests that there is no significant difference between the two treatment groups.

Data Collection

Data for this study were collected from a variety of quantitative and qualitative sources. Quantitative data were obtained from the standard university service-learning course evaluation survey. Qualitative sources included students' reflective journals, focus group interviews, and telephone interviews.

In service-learning courses, the most widely used method for evaluating student growth is in the evaluation of student journals. In this study, students in both treatment groups were required to turn in their journals at three points during the semester. Students were not graded on their journals, but they were awarded points for completing the assignment. Journal transcripts were coded and indexed using FOLIO Views software.

A focus group is a purposive sampling of a specific target population using face-to-face, in-depth interviewing (Connaway, 1996). An interview protocol was developed by the investigator and the teaching assistant was trained to moderate. Participants were recruited from each section of the course. Focus groups were conducted following the final class session. The proceedings were recorded on audio tape, and transcripts were coded and indexed using the FOLIO Views program. Due to low participation in the focus groups (6 in the Unlimited-Choice group and 3 in the Limited-Choice group), follow-up telephone interviews were conducted during the summer by the teaching assistant. The same questions from the focus group protocol were asked.

Results

Service-learning Course Evaluation

Corbett and Kendall (1998) conducted Pearson product moment correlations to identify items on the survey that significantly correlate with two dimensions: Content and Citizenship. The evaluation was administered during the next to last class session. It was also administered university-wide to all students participating in officially designated service-learning courses. The results are reported in Table 1 below.

Table 1
Between Group Comparison: Response Percentage by Domain

Domain: Group:	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Content:					
Unlimited Choice	41%	46%	13%		
Limited Choice	25%	31%	23%	19%	2%
Total University	19%	34%	29%	14%	4%
Citizenship					
Unlimited Choice	46%	49%	5%		
Limited Choice	31%	31%	31%	7%	
Total University	30%	43%	18%	7%	2%

Note: Unlimited Choice (N= 13)
Limited Choice (N = 16)
Total University (N = 513)

Qualitative Analysis

The following common themes emerged from student journals submitted by both treatment groups: (a) personal feelings of the student, (b) impact of the exceptionality on the individual, (c) educational practices, (d) reaction of society to the exceptionality, (e) connecting course content to the service experience, and (f) other perceived values of the service experience.

Focus group and telephone interviews concentrated on the following areas: (a) value of the service-learning for understanding course concepts, (b) personal growth and benefit from the service experience, (c) benefit of the service to others, (d) influence on future plans, (e) degree to which the service-learning component met expectations, and (f) suggestions for improvement. A summary of the findings for each group follows.

Unlimited-Choice Group. In general, students in this group expressed less apprehension about initiating the service, probably because they had made prior contact while developing their service proposal. However, a few did indicate some negative reactions (surprise, shock, frustration) following their initial experiences. Concerning the impact of the exceptionality, students frequently commented on how "normal" the individual was despite the disability. Others observed how the disability affects the individual's self-esteem and how it often limits major life activities. Observations about the educational system were also mixed. On one hand, students observed how some teachers were able to individualize instruction, work towards goals, and promote inclusion. Conversely, others experienced cognitive dissonance between what they learned in class about "best practice" and what they actually observed in the field. Students remarked about boring instruction, students being ignored for long periods of time, the stigma of being pulled out of class, humiliating student discipline procedures, and the lack of understanding between special educators, general educators, and parents.

Concerning society's treatment of exceptional individuals, most of the observations were negative, including comments on the stigma placed on these individuals and the lack of public accommodations. Most of the students commented on how the service experience helped them to better understand the concepts that were covered in the class. However, few provided specific examples of how it did.

Many students in the Unlimited Choice group indicated that a major benefit of the service experience was the effect it had on their personal growth and understanding. Typical comments included, "I am a lot more understanding than I was before, " and "I think I am a better person, knowing what I know now." For the majority in this group, however, the service experience did not have a major impact on their future professional plans other than to reinforce plans already made. All of the students responded positively on how well the service component met their expectations. Frequent mention was made concerning the value of class discussions and the flexibility of being able to design their own project.

Limited-Choice Group. More students in this group expressed apprehension prior to making initial contact at their chosen service site. Common concerns included insecurity about being accepted by the children, fears about being a bother to the staff, fears about doing something wrong, and uncertainty about their own reaction to the children's disabilities. After the first few contacts, however, most of these concerns were alleviated. The students in this group seemed to make more frequent and insightful reflections concerning their reactions and feelings toward their experiences.

Observations about the impact of the exceptionality were very similar to those of the Unlimited-Choice Group, as were observations about the educational system. One student, in particular, remarked that what he observed "was closer to babysitting than education." That seemed to be the minority opinion, however, as most students commented on the positive things they observed. The students in this group, again, seemed to make more frequent and insightful observations about the educational system. This could be because more of them did their service in a school setting. Observations about society's reaction to the exceptionality mirrored those of the Unlimited-Choice group.

Overall, students in the Limited-Choice group demonstrated the ability to link specific concepts covered in class to their service experience. However, students who did their service at Neighborhood Preschool expressed greater difficulty in making these links. This is probably due to the fact that few children with disabilities are served at this agency, whereas Happy Valley School and Camp ABC serve children with disabilities exclusively.

Similar to the Unlimited-Choice group, this group indicated that the service experience reinforced previous career decisions, but did not influence them to make any major changes. Several students commented on how the service provided them with experiences that would contribute to their professional development. Most of the students reported that the service-learning component was a valuable experience, and they were glad they had done it.

Discussion

Analysis of the data suggests that students benefited from both service-learning approaches. However, each approach seems to offer unique advantages and disadvantages. The following discussion will examine these.

Results from the Service-Learning Course Evaluation (see Table 1) clearly show that students in the Unlimited-Choice group responded much more positively in both domains. In the Content domain, 87% of the Unlimited-Choice group responded positively compared to 56% of the Limited-Choice group and 52% of the Total University. In the Citizenship domain, 95% of the Unlimited-Choice group responded positively compared to 62% of the Limited-Choice group and 73% of the Total University.

What can explain this difference? It is impossible to know for sure. However, there are some indications to be found in the data. First, students in the Unlimited-Choice group liked the flexibility and freedom of being allowed to develop their own service projects. They identified areas of personal interest and engaged in service that had meaning to them. Conversely, students in the Unlimited-Choice group could only choose from three options. Although these options provided a great deal of variety in types of clients served, time availability, and geographic location, several students expressed frustration in finding a way to fit the service requirement into their busy schedules. Moreover, the limitation of options may have lessened the students' feeling of ownership of the service project.

Second, several students in the Unlimited-Choice group commented on the value of in-class discussions about the service experience, while several in the Limited-Choice group wished there had been more opportunity to do this. Part of this can be explained in how the two classes were scheduled. Students in the Unlimited-Choice group met two afternoons each week, while the Limited-Group only met Monday nights. Although both classes met for the same amount of class time, it may be that the twice-per-week schedule was more conducive to class discussions. However, it could also be that the instructors for the Unlimited-Choice group placed more emphasis on class discussion. Regardless, it appears that class discussions are a critical component of service-learning.

One advantage that the Limited-Choice approach seemed to offer is that students in this group were able to make more specific connections between course concepts and the service experience in their reflective journals. One possible explanation is that the agencies that were selected for the Limited-Choice group serve a diverse population of children with exceptionalities. Conversely, most of the students in the Unlimited-Choice group focused their service on one individual. However, it appears that the ability to develop and sustain a relationship with a single individual or group of individuals greatly contributes to the students' satisfaction with the overall service experience.

The results of this investigation suggest that service-learning can be a valuable component in this type of course. Personal ownership, feelings of acceptance, development of relationships, opportunities for class discussions, and recognition of the value of the service all contribute to student satisfaction with the experience. Selection of appropriate service sites also contributes to the quality of the experience.

*Note: The names of the service-site agencies have been changed to protect confidentiality.

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SPECIAL EDUCATORS' ABILITY TO FUNCTION AS LEADERS IN INCLUSIONARY SETTINGS

The current practice to include all students with special needs in the general education setting has generated anxiety among both special and general educators (Reganick, 1993). Both groups of educators are concerned about the effects of inclusion upon the educational efficacy of the general education classroom, as well as their own abilities to meet the new demands that inclusion places upon them (Wigle & Wilcox, 1997). Neither group of educators are certain of the merits or expectations of including students with disabilities in general education classrooms (W. Stainback & S. Stainback, 1991; H. Turnbull & A. Turnbull, 1990)

Yet, even in the race of this trend, there has been only a relatively slow and gradual emergence of new standards for special educators within their own professional association. As a result, the specific role of special educators has become dependent upon the interpretation of local general education administrators (Council for Exceptional Children, 1995; Wigle & Wilcox, 1996). With this development there has been an emergence of new roles for special educators. The professional literature seems to focus on the consultative and collaborative aspects of the "new" special educator (Dettmer, Dyck, & Thruston, 1999). The special education consultation now often performs many of the function previously thought to be the domain of the licensed special education administrator, e.g., problem-solving, delivering inservice programs, knowledge of special education law, case management, parent interaction, and record keeping (Kampwirth, 1999). Whether special education professionals are being prepared adequately for their new role is an important question (Wigle & Wilcox, 1995).

The authors of this study investigated the competencies of special educators on a set of 35 skills identified by the Council for Exceptional Children (CEC) as being important to professionals working in a leadership role in special education. The self-reported competencies are discussed in terms of their implication for special education programs and services for K-12 schools and in terms of their implications for the preparation of professional education personnel in institutions of higher education (IHE).

Method

A sample of 60 special educators were selected randomly from each of four states, i.e., Nebraska, Tennessee, Kansas, and Texas from the respective state school directories for a total sample size of 240 persons. Other self-reported materials were included in the packet, e.g. demographic information, a cover letter explaining the intent of the study, and an envelope stamped and addressed for easy return.

A survey was developed based upon the 35 skills identified by CEC. Each skill was used as an item to which the respondent was to indicate his/her level of competency by checking either (1) skilled, (2) adequate, or (3) inadequate. Each level of competency was further defined on the survey sheet. Forty-nine surveys were returned for a response rate of 20%.

The data were sorted according to the demographic information included on the surveys. The number of responses at each level of competency for each CEC skill were counted and the percentage of responses at each level were computed. The fact that all of the data in this study were derived from individuals who chose to voluntarily participate and that the overall response rate from the target population was relatively low (20%), represents a selection bias. The threat to the external validity of a study that is posed by such a selection bias is well-documented (Campbell & Stanley, 1963). This study did not involve comparison between groups thus it was not possible to draw any causal conclusions from the data obtained. However, even given these limitations, the value of this study lies in the fact that it represents a sample of special educators across several states and that it offers some insight into various important competencies of professionals who have the potential to impact students with disabilities in significant ways (Wigle & Wilcox, 1999).

Results

The majority of the individuals in this study were both well educated and experienced. More than one-half held a Master's degree and have completed at least 11 years of teaching. The gender division was relatively uneven as 76% of the respondents were female.

An analysis of the data revealed four distinct groups of competencies. (See TABLE 1). One group, consisting of only two competencies, dealt with developing budgets and procuring funding. The respondents scored "skilled" only 10% and 16% respectively.

A second group was the largest number of skills (14). It involved creating professional development programs, using technology, developing new services and programs, and implementing a variety of administrative procedures. This group was the second overall lowest level with a range of 8% to 29% skilled, and a mean overall of 21.3%.

The third group involved 12 skills that included a variety of roles and responsibilities, specifically, to be able to develop discipline policies, programs of assessment, create inclusive settings, create and advocate for families of individuals with disabilities, and develop effective consultative and collaborative techniques. The respondents indicated the second highest level on individual skills ranging from 18% to 56%. The overall group mean of responses was 35.4% skill level of ability.

There were seven skills in the fourth group involving the ability to understand and interpret data and information, develop effective communications with parents and families, demonstrate high standards of ethical practice, and develop collaborative programs of education. This group was the highest level of perceived ability. The percentages of competencies raged from 43% to 71% with an overall group mean of 55% skilled.

Discussion

Special educators fill a wide range of very important roles in special education programs (Hallahan & Kauffman, 1991). As a result, if they are going to be effective leaders, they need to have an array of some very important skills. The data reported above suggest that the special educators in this study perceive themselves as having relatively high levels of competence in a broad range of skill areas identified as being important to professionals working in the area of special education leadership. However, the data also suggest that the special educators in this study often perceive themselves as lacking in some of these important skills.

Group 1 skills contained the lowest competency scores. This is not surprising given that developing budgets and interagency agreements are usually not part of the preservice preparation programs for special educators (Kampwirth, 1999). However, 18% of the respondents indicated their ability to develop budgets to be "adequate" and 20% more rated their ability at the "skilled" level. The ability to create interagency agreements was rated as "adequate" by 29% of the respondents and another 16% rated their ability as "skilled." Such relatively acceptable scores could be explained by the fact that the nature of the duties of special educators require them to prepare budgets for their programs to ensure the proper educational program for each identified student. In addition, administrators expect the special educators to know where to find resources and agencies to provide needed services for students with disabilities.

Group 2 contained the second-to-lowest ratings on 14 skills. These competencies are indicative of changes and transitions that are taking place in the responsibilities of special educators. For example, 35% of the respondents rated themselves as skilled in the use of technology to facilitate the learning of student with disabilities. However, if technology is going to be able to fulfill its promise for students with disabilities, then preparation programs for preservice special educators and staff development programs for special educators who struggle with the application of classroom technology will both need to be improved (Cwiklik, 1997).

Other changes are also impacting special educators. For example, the competency areas in Group 2 call for leaders to be able to do things like creating professional development programs for their colleagues, to develop new student-service programs that do not presently exist in their schools, and to implement a variety of administrative procedures and initiatives that include things like strategic planning and setting a "vision." Almost 50% of the respondents of this study rated themselves on the skills in this group at least at the adequate level.

Group 3 was rated as the next-to-highest level of perceived ability for the special educators. The skills in this group represent a mixture of old and new roles and responsibilities and a continuum from the traditional to the transitional. For example, the assessment of students with disabilities is a relatively traditional job responsibility of special educators, as are the abilities to modify curricula and materials, adapt instructional approaches in order to meet the needs of a diverse array of students with disabilities, and develop instructional programs that are appropriate to the needs of the students being served (Olson & Platt, 1996).

Dealing with discipline and trying to promote positive behavior in students with disabilities represents a mixture of traditional job roles and new responsibilities, given the changes which relate to student behavior that have been implemented in IDEA (1997). Special educators will need ever greater skills and abilities in this area to make sure that students with disabilities who engage in disruptive behavior receive appropriate educational interventions (Voyles, 1997).

The emphasis on inclusive practices in P-12 schools, the ability to communicate and collaborate with administrators, general classroom teachers, and families of students with disabilities, and the ability to be an effective advocate of students, are relatively new factors in the roles and responsibilities of special educators (Cates & Yell, 1994; Wigle & Wilcox, 1997).

That the respondents indicated relatively high levels of competency in the Group 3 skills is an indication of the confidence they have in their ability to meet some of the new and challenging demands they face in special education. Inservice programs need to be provided for the special educators' transition to new roles and responsibilities as leaders in inclusionary settings.

Group 4 contains seven rather traditional roles and responsibilities of the special educator. The fact that Group 4 competencies are very familiar to special educators may explain the finding that the respondents in this study indicated the highest level of ability with an overall group mean of responses indicating the skilled level at 55% and only 5% rated this group mean at the inadequate level. The respondents perceived themselves as being skilled in understanding and interpreting data and information about students with disabilities, communicating with parents, developing collaborative educational programs, and demonstrating high standards of ethical practice. The competencies in Group 4 are important to the overall effectiveness of special educators. However, as the findings in this paper indicate, it may be necessary for programs that prepare and develop such professionals to spend relatively less time on these competencies and relatively more time on the newer, more transitional competencies that have been identified by CEC as being important to professionals working in leadership roles in special education.

Conclusion

The implications of the study for the preparation of educational personnel are two. First, IHE preparation programs should continue to stress the relatively traditional skills of special educators. These skills are critical to the success of special education programs and these are skills that IHEs currently seem to be adept at helping special education personnel develop. Second, IHE preservice preparation programs and inservice staff developing programs need to improve the skills of special educators related to newer and more transitional competency areas.

. That the special educators in this study indicated relatively high levels of competency in various important leadership roles is an indication of the appropriateness and efficacy of both preservice and inservice programs for these professional educators. The fact that the special educators in this study saw themselves as lacking some of these important leadership roles should be a real concern to all professionals who have responsibility for special education programs. Special educators play important leadership roles in providing services to students with disabilities. These educators must provide the leadership that will be needed to ensure that the needs of students with disabilities are met adequately. To be able to do so, they will need to develop the same level of skill on transitional areas of competency that they presently see themselves as having on more traditional areas of competency. Absent such levels of competency, it will be relatively difficult for them to function as effective leaders in inclusionary settings. Such outcomes will lower the effectiveness of special education programs and result in serious consequences for the students served by those programs.

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TABLE 1 Respondents Ratings of Competencies

Group 1 1-Inadequate 2-Adequate 3-Skilled	1	2	3
19. Develop district budgets & procure funding from federal, state, and local sources to ensure the efficient & effective allocation of resources.	59*	18*	10*
15. Develop & implement interagency agreements that create system-linked programs with shared responsibility for students with exceptionalities.	47	29	15

Group 2 1-Inadequate 2-Adequate 3-Skilled	1	2	3
26. Develop parent/family education programs & other support groups	43	49	8
17. Develop & implement professional development programs for individuals, school site, & district personnel that include use of technology.	39	41	14
27. Implement conflict resolution programs and support consensus building.	39	45	12
22. Use a variety of technologies to enhance efficient management of district resources & programs.	35	45	20
10. Develop & implement a technology plan that provides a wide array of technology for use in direct services.	33	29	22
1. Develop & communicate an inclusive vision for meeting the needs of individuals with exceptionalities to the various publics/constituencies within the school, community and state.	20	49	29
25. Implement a variety of management & administrative procedures to ensure clear communication among administrators & between administrators.	20	67	22
28. Develop & support communication & collaboration with educational & other agency administrators.	20	55	25

Group 3 1-Inadequate 2-Adequate 3-Skilled	1	2	3
18. Develop & implement a district discipline policy & procedures for individuals with exceptionalities including procedures for IEP development	18	45	35
20. Develop building level supports that sustain inclusive educational settings.	18	37	41
24. Support individual school sites in implementing a range of strategies that promote positive behavior, including crisis intervention & family support & involvement.	18	57	24

14. Develop & implement ongoing evaluations of district special education programs, & practices based on student learning.	18	49	18
3. Plan, communicate & negotiate student & family needs & Programs within the state, local district, including local schools & other public & private service agencies.	16	49	27
6. Implement an assessment program for individuals with Exceptionalities that is linked to the general system assessments, provides appropriate accommodations and/or valid alternative assessments & which will demonstrate learner progress toward educational goals.	16	20	57
11. Assist in development of district curriculum & instruction al models that provide appropriate experiences for all students, including individuals with exceptionalities.	14	43	31
4. Advocate for the inclusion of individuals with exceptionalities in the local, state accountability system.	14	47	33
32. Serve as the advocate for individuals with exceptionalities & their families at the district level.	12	50	31
5. Develop & implement programs that respond to individual Family characteristics, cultures, & needs within a continuum of services.	12	41	43
13. Support site-based decision making processes & ensure that decisions & management procedures provide appropriate services to individuals with exceptionalities.	10	49	37
31. Effective consultation & collaboration techniques & their application in management & instructional settings.	10	47	37

Group 4 1-Inadequate 2-Adequate 3-Skilled	1	2	3
6. Understand & interpret data/information about individual students & their families within a cultural context.	8	43	43
30. Develop & provide effective & ongoing communication with parents & families of individuals with exceptionalities	6	35	55
34. Communicate & demonstrate a high standard of ethical practice.	6	22	70
12. Develop collaborative general & special programs & other innovative approaches to ensure that individuals with exceptionalities have access to & appropriately participate in the general education curricula & instructional programs	6	33	55
33. Respect & support students' self-advocacy efforts.	4	47	47
29. Collaborate & engage in shared decision-making with building administrators to support appropriate programs for individuals with exceptionalities.	2	51	47
35. Make decision concerning individuals with exceptionalities based on communication, trust, mutual respect, & dignity.	2	27	71

*Percentages rounded to next higher whole number.

*Shaded areas highlight the adequate and skilled responses.

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STRATEGIES FROM INSTRUCTIONAL EFFECTIVENESS APPLICABLE TO TRAINING REGULAR TEACHERS FOR INCLUSION

During the 1980s, the educational movement of "regular education initiative" (Will, 1986) started the trend to place students with disabilities in classrooms with their peers without disabilities. The more recent movement, inclusion or full inclusion, is the process of placing students with disabilities entirely in the regular classroom (Kauffman & Hallahan, 1995). Inclusion is considered a civil right and promotes equity (Stainback & Stainback, 1990), is believed to reduce the stigma for students with disabilities (Kliewer & Biklen, 1996) and provides efficient content learning (Raynes, Snell, & Sailor, 1991). Opponents of full inclusion maintain that a continuum of service options is necessary to meet the least restrictive environment clause of IDEA (Kauffman, 1995), that teachers are not prepared for full inclusion (Scruggs & Mastropieri, 1996), and there is no research to make such drastic and blanket changes (Fuch, Fuch, & Fernstrom, 1993).

As many rural schools prepare for the inclusion of students with disabilities in general classroom, teachers must be equipped to modify curriculum and adapt environments. Often teachers are searching for ideas to apply in their classrooms to experience greater success in meeting the needs of all learners. The purpose of this paper is to report the results of an analysis of a series of instructional seminars for their applicability to curriculum and classroom environment adaptation. The series of seminars were developed to equip university teachers without education in their professional background. The instructional strategies from the Oklahoma State University Instructional Effectiveness Training Program can be accessed on the Internet (http://home.okstate.edu/homepages.nsf/toc/ieptocpc1 & http://home.okstate.edu/homepages.nsf/toc/ieptocpc2) by any teacher and adapted to meet the needs of learners of all ages. Admittedly, the adaptation of curriculum is a difficult process, but where these strategies are implemented, teachers will succeed in turning such information into working appropriately for themselves.

Background of the Instructional Effectiveness Program

The Instructional Effectiveness Training Program (IETP) at Oklahoma State University was established in 1990 with the assistance of a Regents' grant to improve instruction, retain students, and assist with faculty professional development. The program was designed to provide teaching assistants and junior faculty with instructional skills. Many professors or teaching assistants at comprehensive universities do not typically have professional training in pedagogy. The program began by providing staff development in six areas, each consisting of a two-hour presentations. Over the last decade of program evaluation, student evaluation and institutional assessment, the IETP has grown to thirty two-hour presentations. In the past eleven years, over 1800 teaching assistants and more than 200 faculty members were trained.

In the past three years the IETP was adapted from a classroom presented seminar series to include an online series of asynchronous, product based seminars. As a result of evaluation data, online development was implemented to expand the number of people who might benefit from the abstracted instruction in educational strategies, both in the number of faculty and faculty who teach at other levels. The belief was that university and other school faculty may access instructional information online more frequently than they would attend presentations where they would be grouped with graduate students. Additionally, online instruction is a service to those teachers who live in rural areas.

Currently the IETP provides presentations in several areas. About half of these are available online with the remaining online teaching modules scheduled to be completed by the end of 2000. The IETP consists of the following modules: Introduction to Developing Instructional Effectiveness; Developing Teaching Portfolios; Developing a Psychologically Secure Environment; Creating Community in the Classroom; Student Learning Styles and Differences in Instruction; Identifying and Retaining At-risk Students; Characteristics of Adult (Non-Traditional) Learners; Working with Culturally Diverse Students; Classroom Motivation; Collaborative and Cooperative Learning; Designing Instructional Content: Traditional Instructional Design; Designing Instructional Content: Constructivist Instructional Design; Assessment, Evaluation & Measurement; Writing Items for Appropriate Assessment; The Lecture; Active Learning Processes; Conducting Discussion Classes; Conducting Laboratory Classes; Problem Based Learning Processes; Classroom Questioning Techniques; Teaching Technical Skills; Planning Instructional Lessons; Developing Visual Presentations; Using the Library, Databases and the Internet; Examining Alternative Grading Systems; Construction of an OSU (Traditional) Syllabus; Creating A Web Syllabus; Creating a Collaborative Online Syllabus; Dealing with Problems and Classroom Disruptions; and The First Day of Class.

Method and Results

From an analysis of the series of seminars developed for the IETP, seventeen (17) essential and effective instructional strategies were extracted. The analytic criteria to be considered an essential and effective instructional strategy were that each strategy is (1) theory or research support its use; (2) extensive training is not necessary to implement; (3) teachers in rural areas can self evaluate with a limited number of outside resources; and (4) implementation results in curriculum modification and environmental adaptation. The seventeen areas are summarized herein.

Instruction.

Teachers must come to understand that much about what they do is based on attitude and belief. In the IETP, these ideas are referenced as those essential attitudes upon which effective instruction rests. Attitudes may not result in immediate action but are things which the aware teacher should recognize and which should be taken into account when teaching students with diverse ability from diverse backgrounds and arranging appropriate learning environments. Some of the basic attitudes are:

- Learning is concrete and is based on experience.
- Experiences occur in context, or learning is often context dependent.
- Knowing what one does not know leads to learning to fill in the gaps in one's knowledge.
- The teacher can only facilitate the learning that the learner is motivated to attempt.
- Knowledge must be created from information that is relevant to the learner.
- Good problems involve situations that are perceived as real by the learners.
- The presence of colleagues extends one's own abilities/
- Progress is monitored by observing what others do or are capable of doing
- Students who lack prerequisite skill can only learn if the teacher is willing to take the time to teach the knowledge and skills that are needed.
- Male and female students talk and work differently.
- Effective teachers reflect on their own practice of teaching.

The actions and behaviors of teachers who remind themselves of these attitudes change as each portion of instruction is monitored and evaluated. Starting a lesson with significant cues allows a teacher to acquire student's attention using sufficient stimulation to provoke high levels of performance. Effective teachers provide as many examples as possible, using prompts, links, guides, and structures so that the learner can readily identify what is to be learned and how it relates to what is already known. Teachers will break tasks down to make them accomplishable and help students develop a plan of action for the accomplishment of each task.

Other important instructional actions include providing rationale for how learning relates to experience. Any classroom rules should be explained; however, reduce teacher control to improve learner confidence and responsibility. Listen carefully to what all students are trying to say. Language often acts as a barrier for students from other cultures or backgrounds. There are many reasons why cultures clash in classroom communication. Perhaps there are accents or dialects, perhaps the meaning of words differs, or perhaps finding the right words for the school culture is difficulty when under pressure.

Student Production

Product based recommendations throughout the IETP focus the orientation of teaching and learning on the creation of products that are authentic and which have authentic audiences. The process is a constructivist approach with the creation of new, innovation and original work from each student. This focus of learning often represents a significant change from what is provided traditionally in classrooms. To move to authentic products and audiences, teachers provide real-world opportunities for product based learning. Teachers might consider showing learners real life applications of the learning content.

The more difficult portion of authentic product development is arranging for a real audience. A real audience means the display of student efforts before an audience that hold authentic interest in the product. Other students in the class are often a contrived audience, a result of having a similar assignment. If the learning and the satisfaction are to be authentic, public displays of performance are used. For example, submitting papers to be published, conducting poetry readings at the public library, or submitting work to various competitions or contest are considered authentic audiences. All students should have an equal chance of "looking good."

Psychologically Secure Environments

The concept of the psychologically secure environment focuses on the safety needs of the students. The essential theoretical concepts are adapted from Maslow. If the student does not feel secure it is unlikely that that the student will reach out and try to develop independence, risk taking, problem solving, etc. The recommendations in IETP focus on ways to make the environment more secure in the eyes of the student. Treat students with dignity and respect. Accept students as valuable, worthwhile human beings, although you may have to reject particular behaviors. Provide a psychologically secure environment where it is safe to take risks and easy to trust. Make the environment psychologically secure for slower readers, limit the amount of reading, make alternative assignments, provide books on tape, etc.

The emotional response of students must be anticipated for each comment made in classes. Recognize that students who are afraid of embarrassment or ridicule are unlikely to participate in the discussion no matter what the incentives. Insure that students are not laughed at, humiliated, or made to look stupid in front of their peers. Avoid ridicule by the instructor, peers, or implied in the publication of student developed information/ projects. When a learner is ridiculed, it causes a negative emotional reaction that leads either toward withdrawal or aggression. Reduce the possibility of putting students at risk by avoiding conditional acceptance, reducing fear, and by increasing peer interaction. Provide safe learning environments where students have access to the rewards of learning without threat of humiliation, excessive challenge, physical or psychological violence. Keep disagreements civil and unheated. Do not tolerate peer attacks on beliefs and values. Empower students by recognizing and incorporating their diversity into the learning. Understand that when a student's expectations are violated, the classroom becomes an unsafe place.

Motivation

There are a number of things which teachers recognize related to motivation of all learners. Some of these items follow. All behavior is motivated and everyone is motivated in some way. Learning should be fun. Students are motivated by their historical experience with a topic. The more confidence and satisfaction students have experienced, the more likely they are to persist when they are trying to do something that does not immediately yield to their attack. Challenge motivates.

Classroom rules and norms are threatening for some students. Provide choices or alternatives whenever possible. It is hard to motivate unprepared students. Many students who fear to fail respond by failing to try. Learning communities motivate and include. Different cultures use different motivators.

Competition is a metaphorical hit for anyone who does not win. Avoid forcing students to compete for a limited number of rewards. Everyone wants to succeed. If students cannot succeed because of limited opportunity, many will opt not to try. Tell students that they possess the skills and competencies to successfully accomplish the learning goals, to improve their motivation. Foster the belief that competence or ability is changeable, controllable aspect of development. Promote motivation by helping students predict success

Success

Plan for success for each learner. Look for materials, which are not threatening; but, are student-controlled, and self-reinforcing. Help learners see that effort brings success. Typically providing choices in a range of difficulty levels does this. Different difficulty levels allow different students to find mid-range challenges. Allow students to track their own progress so that they can be sure they are doing what is necessary. Knowing where you are is extremely important when rewards are external and are applied by others rather than by one's self. Provide frequent feedback either peer or instructor both for recognition of work well done and for correction to improve products.

Consider Student Expectations

Expectations relate to what the student expects in the learning environment. For example, a student who expects to fail would be foolish indeed to waste time trying to succeed. Attend to the expectations of all students, especially when they conflict with yours. Expectations can be changed longitudinally by continued incremental success in areas that previously yielded only failure, especially for younger children. Remember the attitude that student expectations determine success or failure. Spell out all of your expectations in the directions to the students. Only some learners are ready to learn at any given level.

Scaffolding

Scaffolding is the process through which the teacher provides cues, assistance, and supports needed by the student to be able to accomplish a task. Scaffolding is a process that can be thought of metaphorically, like having training wheels on a bicycle. Scaffolding must be provided as is necessary for the learner to absorb the new information and transform it. If the learner is unable to assimilate and accommodate the new information, there is a period of coaching or apprenticeship where the facilitator and the learner think conjointly. Develop a class climate that facilitates the use of scaffolding. Provide appropriate scaffolding to insure that students will meet our high standards as they are reaching for success. Provide scaffolding through coaching. Provide scaffolding to assist learning by others (teachers or peers) to acquire knowledge or skill that cannot be acquired without assistance at that point. Provide supervised and unsupervised practice, with scaffolding available, to ensure that skills are acquired.

Respect

Teachers who show respect for learners create a learning environment that is safe. The suggestions here show different facets of respect in the learning environment. Respect students' beliefs, experiences, attitudes, abilities, and goals. Treat each student as an individual to prevent unnecessary anger or fear. Teach students to value diversity to support learning communities. Speak up promptly if a student makes a distasteful remark, even jokingly. Confront racial slurs or denigrating jokes both inside and outside the classroom. If you think a joke may offend someone, then don't tell it or tolerate others telling it.

Adaptation

Adaptations reflect ways in which the teacher can change the learning environment to make a learner more successful. For rural students with disabilities, this may mean employing such strategies as adapting ideational density, reading level, presentation speed, etc. Determine the acquisition level of students so that instruction level can be adjusted. Use the learner's strengths to insure that must know information is acquired. Provide differential treatments based on their ability for those with different aptitudes or abilities. Individual students can be informed about the areas in which they do not have needed prerequisites. Provide supplemental instruction in all areas where there are skill deficiencies before the student is asked to use the skills in learning of new content. High grades should not be restricted to fast, historically knowledgeable learners. Match cognitive style to learning mode to avoid frustration, increased effort expenditure, and boredom. Adapt the content for the learner who reads below grade level the content will need to be adapted by finding alternative text or rewriting the content at a lower level of conceptual density.

Provide alternative approaches. Doing the same thing over, after the approach has failed is inappropriate. Teachers must do more than say try harder, they must show students how to try *differently*. Provide variable amounts of time. Many more students succeed if given time. This is a competency approach that says that the speed with which one learns does not affect the final outcome if the content is learned effectively. Proceed step by step through the details that need to be absorbed in order to acquire skills. Put key words on the board, underline important sections or use highlighters. Recopy notes in colors. Tape record lesson or notes for relistening later.

Prerequisite Skills

Preassessment is always necessary if grades are to be meaningful and if students are to have a chance at meaningful learning. Students who are deficient in prerequisites are usually deficient for one of three reasons 1) inappropriate advising, 2) lack of instruction, or 3) previous poor learning experiences in the content area. Understanding is determined by the previous experiences of the learner, past knowledge and the ways in which previous information has been stored. Assume that the student is responsible for his/her own learning. Students will learn what they want to learn, assuming that they have the prerequisites in place. From this perspective the learner is responsible.

Many students fail because they lack prerequisite skills. Assess student's previous success/failure history or allow them to choose their own goals. Provide prerequisite skills when they are needed for students who do not have assumed prerequisite skills. These students will be at risk to the extent that these needed skills impede their performance. Provide supplemental instruction in all areas where there are skill deficiencies before the student is asked to use the skills in learning of new content.

Group Activities

Group activities are ways for teachers to include all students. Provide collaborative group activities. Encouraged students who feel comfortable in their understanding of the material to talk about how they organize their knowledge and to share the strategies that they use when they encounter new information. Encourage learners to try to explain to peers what they do not understand. Promote cognitive flexibility though the use of cases which require learners to apply what they have learned in a simulation of a real world situation.

Choice

A choice of activities is offered to students when teachers want to facilitate students working within their strengths. When students have choices, they will feel more secure and will be more motivated because of the higher probability of success. Stimulate students through the provision of questions that they can choose to answer.

Optimal Level

There is an optimal level for learning for all students. This is the level at which performance is maximized. To reach this level, learners are challenged in the mid-range of difficulty. This level will vary depending on the individual learner. Challenge learners with learning opportunities at an appropriate level. When the learner attempts a task that is not at the optimal level, his or her learning performance is degraded. Approximate the appropriate step size in teaching that will keep the cognitive load low for the student and adjust the step size so that the student is learning easily. Present material in a paced or sequential manner.

Learning Communities

Learning communities are groups learning together through mutual facilitation. This leads to the idea of the learning apprentice. Provide a supportive learning community to improve student success. Provide the social environment for learning. Much knowledge is constructed in social environments where people interact.

Younger learners learn what society considers to be socially appropriate behavior. Allow more experienced students to create material designed to help less learning sophisticated students. Create learning communities where students are not pitted against each other in the classroom or isolated without friends in the classroom.

Problem Solving

One of the major activities in school learning is the solution of problems. Some students may initially experience difficulty in this arena. To assist all students in problem solving some of the following ideas may be applicable.

- Foster openness to new ideas.
- Encourage students to generate many, varied and unusual ideas.
- Model suspending judgment.
- Teach learners the grammar of problem solving (the process of problem solving in a particular discipline).

The process of problem solving is to first be sure that you understand all the parts of the problem. Talk the problem over with others. Write the problem out in your own words. Have someone else compare the original problem and your summary of the problem to be sure they are the representing the same issues. Learn from your mistakes. Do not get frustrated. Keep a record of what you did. Draw a sketch or diagram. Make a list and look for patterns. Start with the sub-problems you know you can solve. Check your answers.

Questioning Techniques

Questioning techniques range from teachers asking and answering their own questions to teachers listening while students ask and answer questions among each other. To encourage discussion that is based on innovated, productive, and creative thinking, the teacher must restrict providing positive reinforcement for those answers that she or he considers better than others. The reinforced response will shape every answer provided and individual creativity is lost. Teachers who ask questions to promote thinking will ask open questions, seek variety in responses, encourage student-to-student interaction, accept and attend to all responses, refocus questions to the topic discussed, ask for clarification, and ask for support and reasoning for all responses.

Students should know that any question is permissible and all questions will be answered respectfully. Some questions arise out of confusion and a confused student becomes anxious and is unlikely to learn. This balance between not giving one's own opinion and, at the same time, preventing anxiety is a difficult task.

For content related questions, encourage students to prepare questions while they complete the assignment. Students can formulate questions prior to class anytime reading, math problems, experiments, case studies, journal writing, etc. are assigned. Listen to the questions of students and encourage them to answer their own questions with small amounts of information. Try to help the students develop a solution to the question. In some situations, ask the student to see you after class or defer the question to a more appropriate time, but make sure you come back to it. Propose a plan for finding out, or ask students to develop a plan for finding out. Suggest a resource where the student can check for an answer. Volunteer to find the answer and report back to the class later. Direct students to respond to the questions of others.

Measurement

Some students with disabilities seem to have a number of problems with issues related to measurement and assessment. Several problems are alleviated when tests have appropriate reliability and validity. Validity for diverse learners translates into appropriate assessment about what each student has learned. Other issues can be resolved by ensuring that students understand the testing system. In addition, teachers may wish to use formative tests to identify the specific objectives not yet mastered by each student after initial instruction. Evaluate achievement against the attainment of clearly stated instructional objections. Design assessment so that it is measurement of what the students know rather than a test to see how fast they can demonstrate their knowledge. Return to the attitude that time is important only in testing for skills that require speed, such as typing or sending Morse code.

Summary and Conclusions

The large number of ideas presented in each of the seventeen areas is meant to stimulate thoughtful reflection for each teacher working with students of diverse ability and backgrounds. These strategies are a reminder or a review for many experienced teachers and a introduction or new perspective for some. Teachers may want to establish a dialogue with the seminar instructors or others attempting to implement ideas in a specific area and reflect on professional development.

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SUBSTITUTE TEACHERS AND STUDENTS WITH LEARNING DISABILITIES: PROBLEMS IN RURAL AREAS

Introduction

Students with special needs require structure and regular routines to help them feel secure. Their lives are often chaotic and they have difficulty with organization. When a new substitute teacher is in the room, the unfamiliar experience springs chaos back into their lives. Lerner (1997) describes the need for the teacher to provide structure and have rapport with students with learning disabilities. Smith (1998) also discusses the need for consistency, structure and routine for other disabilities such as Attention Deficit/Hyperactivity Disorder, and behavior disorders.

A teacher that takes steps to teach social skills and that helps students to accept differences can make a big impact on people's perceptions of students with disabilities. Students in special education need to feel secure that all of their efforts will be recognized and that they will not be set up for ridicule if their deficiencies are exposed. Consistency is key to the success of social skills training, but a substitute teacher that is unfamiliar with the instructional program and student emotional needs may disrupt this consistency.

Substitute Teacher Concerns

The time substitute teachers spend with students is increasing because educational reforms give added responsibilities to the regular teachers that take them out of the classroom. Substitutes are brought in to pick up the slack. Billman (1994) claims that substitute teachers oversee five solid months in a typical student's K-12 education. Others studies note that up to 10 percent of the nation's classrooms have substitute teachers (Nidds & McGerald, 1994; Ostapczuk, 1994; Wyld, 1995). If the substitutes are not trained to work effectively with the students, then valuable time is lost.

Case law holds the substitute, principal, and school district to the same standard of care as it does regular teachers, and each is liable for acts of negligence (Cotton, 1995). The school is held legally responsible to work effectively on the IEP goals even when there is a substitute teacher in the classroom. If we are to change the negative outcomes that happen to students with special needs, we need to become more effective teachers. If substitute teachers take up 5 or 10 percent of a student's time in school, then it is important that we train substitutes to be more effective teachers.

Baby-sitters, fair game, stopgap, object of pity, and warm body are common perceptions of a substitute. The lot of substitute teachers is generally not a happy one (Nidds & McGerald, 1994). For the most part, they tend to be treated as a marginal member of the education community (Ostapczuk, 1994; Wyld, 1995). Students, teachers, or administrators regard substitutes as less than full professionals who meet accepted standards of practice-perceiving them as less effective than first-year and student teachers. While often considering themselves to be effective instructors, substitutes frequently do not see themselves as professionals (Billman, 1994; Ostapczuk, 1994). Students may ask substitutes if they want to become a real teacher.

The perception by students, parents, and colleagues that substitutes are merely babysitters or pinch-hitters—the "warm body stereotype"—are hurdles for the substitute to overcome (Wyld, 1995). Complaints about substitutes lacking qualifications, and pedagogical and classroom management skills are often heard from school staff (Ostapczuk, 1994). These problems are not new. The same problems were documented 50 years ago (Ostapczuk, 1994) and progress is slow because solving the problem and training substitutes seems to be a low priority in most school districts (St. Michel, 1995).

Behavior Management: Necessary Skills

Substitute teachers face unique challenges in maintaining classroom behavior. Generally they are present for short periods of time. They have little time to develop rapport with students. They are not members of the daily faculty and have limited time to report to teachers and administrators. Students may assume they have less authority. Substitute teachers may be unfamiliar with the physical layout, faculty structure, discipline policy, and schedule routines. Couple these challenges with the fact that many students see a substitute teachers as an opportunity to avoid work and have some fun, and it is not difficult to understand why behavior and discipline are top concerns.

Some of the best proactive steps to a good day for a substitute occur before the substitute even arrives. Quality lesson plans and notes from the regular classroom teacher can make the day more organized and productive. The substitute should also have a clear understanding of class rules, expectations and the normal sequence of consequences for non-compliance.

The administration plays a role in the respect that substitutes establish in the classroom. Substitutes need to be aware of the district discipline policy before they can be expected to enforce it. In the interest of establishing authority with the students it is usually best for the substitute to handle minor incidences without administrative intervention.

Improving Substitute Teacher Classroom Behavior Management

Demands for skilled substitutes can be met by improving the training and support for these essential members of education. The most immediate support available to a substitute teacher are the lesson plans and information left by the classroom teacher. Well thought out, organized and detailed plans can ease the transition for students and staff. Administration must require that appropriate lessons are always available to the substitute. In response, substitutes need to follow lesson plans to the best of their ability. By staying on track with the daily routine and current subject matter, substitutes will ease the disorientation their presence can cause some students.

Substitutes who are familiar with the students and class procedures will be less likely to fall victim to the disruptive behavior that often occurs when substitutes are called in to teach. Substitutes could be permanently assigned to a school building. This would allow substitutes to be visible members of the school staff. In a district with standardized curriculum across individual grade level it could be beneficial to assign a substitute for one or two grade levels. By substituting in the same grade level classrooms teachers would be more familiar with the curriculum and the regular classroom teacher's procedures.

Developing Substitute's Academic Instruction Skills

All educators including substitute teachers should have a working knowledge of commonly used adaptations for presenting material and testing student knowledge. This issue is first introduced during university preparation and can be subsidized by later inservice training and or observation of experienced teachers. Examples include; outlines, study guides, division of assignments into smaller more manageable chunks, extended time for completion, or oral testing.

When the substitute is present, the best option is that instruction be a continuation or the same as it would be with the regular teachers. This may pose a problem, particularly with some secondary subjects and special education settings where the substitute may lack certification or training. Substitutes with special education certification are rare. Regular teacher preparation for the substitute should include clear and concise information including keys and grading rubrics that make clear what is expected of the student's work. A sample of completed work may be provided with notes on specific areas of focus for that particular lesson. A few suggestions about ways to help meet students' needs are also helpful. For instance, John who struggles with hyperactivity may benefit from working with his study buddy who helps him stay on task. Organization of the information is vital so that the substitute does not waste valuable time scrounging for this information and can quickly scan it before having to teach it or assist students in their work.

Substitute Assignment Policies

, The least effective way to assign substitutes is on a first come, first serve basis. When students have a five-day stint with five different substitutes or even a different person each time they have a substitute, valuable time is lost trying to develop routine and rapport. Unfortunately this is often the way substitutes are assigned, particularly with a shortage of good substitutes. One approach mentioned in the literature is hiring permanent, full-time substitutes to create a dependable cadre of experienced replacement teachers. The substitute is placed on the district payroll (Nidds & McGerald, 1994; Wyld, 1995), then when not needed to fill in for absent teachers, these individuals may perform other school responsibilities, such as assisting with curriculum development. This may also provide an opportunity to be more involved with special needs students and have greater preparation when there is a substitute in the classroom. They have already developed rapport between teacher and student and the substitute is familiar with the routine.

A novel attempt at developing substitute programs was described in an article titled "A 'Super Sub' Is Not a Sandwich" (Frier & Creech, 1990). The program assigned the superintendent and other administrators to volunteer as substitutes at least once a year. This gave administrators a unique look at substitute issues. It also had the side benefit of encouraging teachers to develop better plans and substitute folders since they never knew when the superintendent might be substituting in their classroom.

Emergency Procedures

Emergency procedures are practiced so that when a stressful emergency situation occurs, people can automatically carry through with steps that minimize the emergency. The possibilities include everything from health problems of individual students to a school wide disaster. Violence prevention and management policies are increasingly added to the types of emergency drill in schools. Preparation of the substitute in these areas can have life-saving consequences.

Substitute Handbook and Folders

An important resource for the substitute is a well-developed handbook. Logistical information such as calendars, bell and class schedules, maps, school wide discipline procedures, playground and cafeteria rules, and duty schedules, a list of teachers and staff with their subjects and room numbers. Procedures and expectations of the substitute as well as ways to report or communicate with the teacher and administration should be included. Examples of forms such as attendance, discipline, or hall passes can be helpful. It is very important that the substitute is able to have the information as early as possible. Handbooks should be given to substitutes during orientation training before school starts so they have time to study the information.

Substitute folders for each teacher is another important resource for the substitute. This should include all information that will help the substitute be successful in the classroom. Seating charts, schedules, routines, and lesson plans that make it possible for the substitute to concentrate on effective instruction instead of replanning the day should be provided. The folder should contain hints on effective techniques for teaching students with special needs, or ways to be successful with behavior management. A description of where to find things or helpful people—student and staff—to ask for help also helps the substitute orient themselves quickly.

Training Incentives

Including substitutes in staff development through in-service training, either designed specifically for substitutes or including them in regular in-service training may help develop the expertise of the substitutes (Nidds & McGerald, 1994; Ostapczuk, 1994). Encouraging substitutes to hone their skills might be accomplished by adding a five-dollars-a-day bonus for substitutes that complete orientation training, inservice, classroom observations, or workshops for professional development. Additionally, many schools engaged in restructuring or other reform initiatives have found that pre-service students who have extended on-site field work or internships can be cost-effective, short-term replacements for teachers who need time for non-instructional professional work (Abdal-Haqq, 1996).

Concluding Recommendations

Recommendations for structuring good substitute programs include:
(1) improve collaboration between the substitute teacher and the school district,
(2) evaluate and provide feedback to substitutes,
(3) improve recruitment procedures,
(4) develop and provide a substitute teacher's handbook on school rules and policies,
(5) clarify the substitute's role and make expectations clear,
(6) provide specific inservice training on classroom management,
(7) improve the lesson plans substitutes receive, and
(8) appoint a district substitute coordinator.

Additional recommendations include:
(1) improve employment benefits,
(2) treat substitutes as professionals, and
(3) maintain an up-to-date, comprehensive database of all substitutes in the district.

It is important to teach students coping techniques, particularly students with special learning needs, for unavoidable changes in the environment that happen when a substitute is present. At the same time, it is important to prepare substitutes to meet the needs of these students either through training or appropriate lesson plans and environmental structures established in the classroom. Administrative and logistical procedures need to be looked at to see if the needs of these students are considered when assigning substitute teachers. Are the best practices utilized by substitutes to meet the needs of the students, or is the mindset of the substitutes focused on surviving the school day? What are the attitudes of educators about finding solutions to problems that may occur when substitutes are present? Is this a low priority problem or one that most educators don't consider because they are too busy with other educational concerns? Reflection and evaluation are important steps to improvement in this long neglected area. Improvements, however, can increase the likelihood that substituting can be an effectual tool in education, including in special education settings.

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TAKING A LEADERSHIP ROLE IN TRAUMATIC BRAIN INJURY: AN OKLAHOMA MODEL FOR STATEWIDE TRAINING

Abstract:

Effective January 1, 1994 the Oklahoma State Department of Education (OSDE) required that in addition to holding special education certification, special education teachers, who develop and monitor the implementation of the Individualized Education Plan (IEP) for a student with certain conditions, complete 32 hours of training in that area. The OSDE entered into a contract with the University Affiliated Program (UAP) to coordinate the design, and organization of teacher training and to maintain training data. *Registry Training for Special Education Professionals* is approved training in five federal criteria areas (autism, traumatic brain injury, multiple disabilities, deaf/blindness and other health impairments) for which no Oklahoma special education certification exists. This collaborative project is in the sixth year of implementation.

This article focuses on one area of the registry training project, *Traumatic Brain Injury* (TBI). It provides a description of the collaborative, interagency model developed for conducting the training, discusses content and methodology utilized, highlights the key components that have made this statewide training project successful, and includes a discussion of process for identifying project outcomes. This information is provided in the hope that others will recognize the value of this model and replicate all or parts of it in their respective states.

Introduction:

There are over seven thousand special education teachers in the state of Oklahoma, many of whom are employed by small rural school districts with limited resources for training and support of personnel. Special education services vary greatly from district to district depending on resources, priorities, and local interpretation of federal mandates. The statewide training provided through the Special Education Teacher Registry project provides a common knowledge base of information about effective education practices and students with TBI. This information is developed and presented in a way that helps teachers incorporate what they learn into their teaching practices. Participating teachers come from districts across the state which facilitates wide dissemination of the tools and strategies presented in the training. Since funding for the project is provided by the state education agency, all districts can participate with out depleting already limited resources.

Years 1 and 2 (Project History, the Prototype, and Data Collection)

Project History:

In 1990 the Rehabilitation Services Administration, U.S. Department of Education awarded a federal grant to The Institute of Rehabilitation and Research (TIRR) to establish the Southwest Regional Brain Injury Center. This multi-layered *grassroots* educational endeavor covered a five state region (Texas, Oklahoma, New Mexico, Louisiana and Arkansas). The Education and Case Management Specialist for the project, Diane Jones Gutierrez, was responsible for technical assistance and consultation to Houston area schools in addressing the re-entry needs of students being discharged from TIRR, and was charged with developing a protocol to deliver the trainer workshops regarding educational issues and outcomes to providers in the five state area. The OSDE began collaborating with Ms. Gutierrez to conduct awareness level training in TBI. Partnering with Dr. Terry Shaw, Oklahoma State Department of Health, regional offerings in TBI were conducted in both rural and urban areas of Oklahoma. With the inception of the Special Education Teacher Registry Project, the OSDE contracted with Ms. Gutierrez to design a TBI curriculum to serve as the training prototype for the project. Ms. Gutierrez and Dr. Shaw have continued their involvement in the project as collaborative partners in the design, delivery and evaluation of the Registry project training in the area of Traumatic Brain Injury.

The Prototype:

The training content was divided into the following components:

- *overview:* includes a basic understanding of the disability category and implications for educational evaluation and programming
- *family and self-advocate perspectives:* provided by individuals with disabilities and family members who discuss their personal experiences with public school services
- *hands on strategies:* achieved through utilization of individual student profiles provided by participants and presenters; participants work in teams to interpret evaluation information, determine what additional information is needed, what additional expertise or resources may be needed and how to formulate goals and objectives collaboratively with families
- *practicum* or outside assignment: designed to provide the opportunity for participants to practice the skills with a student

Registry TBI training was offered in the two major regions of the state, Tulsa located in the Northeast part of the state and Oklahoma City, which is centrally located. Participants were from rural and metropolitan areas of the state.

Data Collection:

At the conclusion of each offering evaluative data were collected, summarized and disseminated to the presenters. These data were utilized to gauge participant satisfaction and to make minor adjustments to the training format.

By the end of the second year, a cadre of individuals, in and outside of the state had been enlisted to participate in the TBI training. These individuals included self-advocates, family members, service providers and advocates representing the Oklahoma Brain Injury Association, the Oklahoma State Departments of Health, Education, and Rehabilitation Services, and the University Affiliated Program of Oklahoma at the University of Oklahoma Health Sciences Center.

Years 3 and 4 (Formalizing, Refining and Expanding the TBI Registry Training)

The most highly rated aspects of the TBI Registry training were that the offerings were interactive, provided practical information on implementing strategies, and afforded participants the opportunity to meet and talk with individuals who had survived brain injury and their families. These data from participants were utilized to begin formalizing criteria for training content, methodology and presenter qualifications.

Opportunities for interactive learning were facilitated by limiting group size to 50-60 participants. The entire group was divided into small sub-groups to facilitate interactive discussion and *brainstorming* among participants. Interaction with presenters most frequently involved questions about specific students in specific situations which demonstrated that participants' were primarily interested in the applicability of the information. The open floor questioning format required presenters to have extensive knowledge about the of the information being presented. Presenters who were able to field these types of questions were rated highly. Based on this evaluation finding, a criterion was established requiring presenters to be actively involved with self-advocates and families in their own day to day application of the information being presented to teachers.

In Oklahoma training for service providers regarding disability issues frequently provided information about impact of disability on individuals and families in the core content. This information was usually provided by professionals who talked *about* families and self-advocates. Having individuals with disabilities and their families included as presenters offered valuable perspective. These presenters shared first hand their school experiences. Involving self-advocates in continuing professional education for teachers was a novel practice in Oklahoma when the Registry Project began. Parent and self-advocate involvement was so highly rated that the Oklahoma State Department of Education sponsor established the criterion that families and self-advocates would offer their perspectives as part of any training sanctioned for teacher registry credit.

During year four the requests for training in TBI were exceeding the capacity and scope of the registry project. A planning team of agency representatives, service providers, advocates, family members and self advocates was formed to discuss how to meet the needs of other professionals and families who wanted information on traumatic brain injury. The team designed a one day training offering core content from the overview, and family and self advocate components of the registry training. As in the registry training, the content would be delivered by a cadre of individuals including service providers, family members and self-advocates and would be offered in several rural sites across the state each year. Core funding for the training was provided by the Oklahoma State Department of Education with in-kind support from the University Affiliated Program, the State Department of Health, Jim Thorpe Rehabilitation Hospital and the Oklahoma Brain Injury Association. Local brain injury support groups located survivors and family members who were paid stipends to participate in the delivery of the new training. The team disseminated training announcements statewide with targeted dissemination to general educators, school counselors, nurses, coaches, paraeducators, and other related service providers.

Year 5 and 6 (Refining the TBI Registry, Linking Resources, Getting to Outcomes)

Evaluative data continued to be collected and distributed to presenters for use in refining TBI Registry training. These data, however did not provide information to the team on the impact training might be having on students and families involved with teachers who had completed the training. A summative evaluation was developed and disseminated to add an additional evaluation component. The survey was disseminated to teachers who had completed the training 3 to 9 months earlier. The results of the evaluation indicated a need to strengthen the practicum component.

Parallel to the TBI registry training activities, the Oklahoma State Department of Health had established a team of highly trained individuals to provide neurocognitive assessments across the state for individuals with TBI. Under the direction of Dr. Terry Shaw, the Neurocognitive Diagnostic (NCD) Program was also involved in a collaborative effort with the Oklahoma State Department of Education to provide neurocognitive assessments for school districts across the state. As a service provider and family member, Dr. Shaw had been an integral part of the TBI registry training from the beginning. He proposed pooling the resources of the University Affiliated Program and the Health Department's NCD program to strengthen the practicum component of the TBI registry training. The resulting proposal was funded by the State Department of Education and enabled the NCD program to provide an on-site practicum experience for teachers participating in the TBI registry training.

The revised practicum includes four components: pre-staffing (the NCD team, with school input, reviews relevant information, formulates evaluation questions and plans testing), testing,(students with traumatic brain injury and family members are present for on site testing), post staffing (the NCD team de-briefs on the results of the evaluation and formulates information for the written report) and report out (families and school district representatives receive oral and written evaluations and recommendations).

The pre-staffing is videotaped and shown to the registry participants prior to observing the testing via live video feed. The post staffing and report out video segments are incorporated into the final two days of the registry training. The training curriculum was revised to enhance the *hands on strategies* component and to compliment the revised practicum.

Outcomes Summary

There are currently fifteen (15) collaborative partners, including state, county, local agencies and advocacy organizations involved in the TBI registry training.

Six hundred sixty-seven (667) special education professionals were trained through TBI registry training. Two hundred (200) related service providers, advocates, self advocates, and family members received training through the one day regional TBI training in five rural sites.

Registry staff developed and maintain a comprehensive database of special education providers, approved courses and credited hours.

As a result of the evaluative data, the Oklahoma State Department of Education adopted the policy of including self-advocates and families in all sanctioned registry training. This inclusive model, which began as the prototype for TBI registry training, has been adopted by the State Department of Education for use in the Systems Change Project for Transition and in the development of statewide paraprofessional training.

Registry staff developed and disseminated a summative evaluation to determine how training was actually utilized by participants in their settings. Eighty percent of all registry training participants surveyed reported success in utilizing strategies in their settings.

Two new local TBI support groups were formed by teachers who participated in TBI registry training.

The TBI registry training project afforded four self advocates and six family members the opportunity to positively impact the continuing professional education of service providers by telling their story.

Eleven students received comprehensive neurocognitive assessments and the results and recommendations shared with their families and school personnel.

Conclusion:

Two critical elements contribute to the TBI Registry's success: (1) the inclusive consumer driven process used to design, modify, deliver, evaluate and expand the training, and (2) the ongoing communication, collaboration and coordination among all who are involved. As a result of these factors, the training is:

- Well attended and highly rated by participants.
- A resource for rural teachers. With 69% of participants from rural school districts, the project insures that districts get comparable information regardless of location and resources.
- Successful. On follow-up with past participants, the majority reports success in using the information provided. The data also suggest that in order to utilize the information to a greater extent, participants need more support, practice or additional technical assistance in their particular settings.

- A networking resource. During Registry training, teachers from different districts connect with one another about issues in common. Some of these connections continue after the training has ended.

Next steps include identifying ways for participants to access additional technical assistance following training. In addition, project staff are exploring mechanisms to formalize the teacher network using the foundation built through the Registry Training Project.

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TEACHERS AS LEADERS: USING VIDEO PORTFOLIOS TO INSERVICE COLLEAGUES IN TEACHING CHILDREN WITH AUTISM

Wyoming has seen an alarming increase in the identification of children with autism; at the same time, a significant shortage of personnel trained in the area of autism has been documented (Wyoming Department of Education, 1997). In 1997 only one person in the state was identified as being qualified to diagnose and provide technical assistance to teachers working with children with autism. Professional development activities for these teachers have typically been limited to information gathered from out-of-state conferences and from parents and parent advocates.

An obstacle to meeting the training needs of professionals teaching children with autism is the frontier nature of the state. Wyoming is one of the largest states in the Union spanning a distance of nearly 100,000 square miles, yet its population of about 500,000 is that of a small city. It became clear that to meet the needs of Wyoming's growing population of children it would first be necessary to develop a program to effectively and efficiently provide on-going training to teachers over long distances. This challenge was met in 1997, with the development of ATTAIN: An Autism Training Initiative for Frontier Areas.

ATTAIN: An Autism Training Initiative for Frontier Areas

In 1997, the Wyoming Institute for Disabilities (WIND) was funded by the US Office of Special Education Programs to develop and deliver a unique distance education program designed to train teachers in the field to more effectively teach children with autism. This comprehensive statewide program project was developed to increase the capacity of Wyoming's elementary and special education teachers to deliver state-of-the-art educational services. Additionally, ATTAIN would facilitate a system of personnel development that would overcome the barriers of isolation and distance.

Distance Education

Wyoming is a profoundly rural state with many isolated communities one hundred and more miles apart. This along with the states rugged topography and harsh winters makes travel difficult for a large part of the year. Wyoming also has only one University inconveniently located in the far southeastern corner of the state. These conditions necessitated creative alternatives to traditional personnel development and distance education.

In Wyoming, teleconferencing is currently the most widely accessed form of distance education. Although compressed video is available, it is difficult to gain access at a time that is most convenient for classroom teachers. Though there are several sites across the state to access compressed video, class participants may still have to drive more than a hundred miles to the nearest site. Therefore, teleconferencing continues to be the delivery mode of choice. While teleconferencing may provide an appropriate and efficient way of teaching new information, it is not an adequate mode of delivery for teaching and monitoring new skills.

ATTAIN staff believe in a skills based approach to teacher training and the use of skill portfolios as evidence of skill attainment. The desire for a focus on skills coupled with the difficulties in delivery of training prompted the ATTAIN staff to abandon traditional teacher training activities and explore more creative uses of technology and distance learning. Understanding that workshops and conferences alone would not provide the intensive training needed for teachers in the field to master new skill and concepts, ATTAIN developed a program using a combination of distance learning activities, combining audio sessions with compressed video, on-site activities, and the use of student video portfolios for follow-up and assessment.

Video Portfolios

Distance education in any environment is difficult at best. However, when your curriculum includes the teaching of new skills; observing the delivery of those skills for the purposes of evaluation and feedback becomes a challenge when the student is in a classroom 300 miles away. Even in a traditional classroom environment teaching a skill or intervention in isolation does not necessarily transfer to the classroom. The use of video helps to solve these problems. The uniqueness of ATTAIN lies in the use of video portfolios for information delivery and assessment.

Each trainee in the ATTAIN cohort was asked to video a student with autism they were currently working with before the beginning of the first ATTAIN class. This was done with written parental permission. These video clips were then edited by the instructors for use in the first class meeting. The initial composite of the participant's clips set the stage for future ATTAIN classes. Students observed and discussed the children's behaviors seen in this initial tape. With the ATTAIN curriculum focus strongly on functional assessment, students began to develop hypotheses as to the function of the behavior they saw. Strategies for intervention were developed from the hypotheses becoming behavior plans for the students and action plans for ATTAIN trainees. As video was collect throughout the year, participants were able to share and document successes and failures. The video portfolios were not only a source of evaluation for the trainees, but also served as a source for on-going curriculum development and problem solving. The cohort members were able to brainstorm special problems adding a realism to classroom discussion through the use of their video. Ultimately the video portfolios, edited by the trainees throughout the course of the program, became a resource for local inservice training.

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TOURETTE'S SYNDROME-
A MISUNDERSTOOD NEUROLOGICAL DISORDER: CLASSROOM STRATEGIES AND TECHNIQUES

He didn't know where his ideas came from--why he cursed at the times he did, what gave him the "idea" for a new tic, what caused him to have paroxysms of sounds and the actions which would leave him exhausted.
-Anonymous

"I felt like a whirling dervish--I could never sit still. On the outside I had every tic in the book. On the inside I was a real mess--I was loaded with crazy ideas which just went around like a cracked record."
- Anonymous

The Institute of Pennsylvania Hospital (Cohen, 1990)

Many pre-service educators graduate without ever hearing of the condition Tourette's syndrome. This is by no means the fault of the teacher, as this condition has been described as rare and bizarre (Kurlan, 1989). Consequently, researchers have found that this is seldom included in the curriculum for educating regular teachers (Haslam, 1996). Tourette syndrome is difficult to understand, even for those who struggle with it daily. The above excerpts are just a beginning of discovery and insight into the world of Tourette. Due to the limited availability of instruction, accessible to today's educators regarding Tourette syndrome in the classroom, an environment is fostered lacking the tools needed to provide an academic atmosphere that promotes learning as well as social development. This deficit in knowledge, as well as experience, in teaching and interacting with children exhibiting neurobiological disorder (NBD) is the cause of the problem. Lacking resources and training, today's teachers are ill equipped to handle the influx of exceptional children included in their classroom population. This is not a time for blame, but a time to disseminate knowledge and share ideas that will in turn, lead to tolerance and understanding.

A brief overview of the historical framework is crucial for the educator to better understand the students' interaction in the academic environment, in an effort to promote mutual success. The first case of Tourette's syndrome was reported in medical literature in 1885, by a French neurologist, Dr. George Gilles de la Tourette (Sacks, 1990). The symptoms reported by Dr. Tourette included involuntary tics of many parts of the body and vocalizations, including coprolalia, echolalia, snorting, barking and innumerable other sounds. Dr. Tourette described the behavior as compulsive and inappropriate. He also noted that even though the behavior would wax and wane, the behaviors were definitely involuntary. There were no signs of delirium or other mental problems (Comings, 1990). Dr. Oliver Sacks (1990) writes:

> It was clear to Tourette, and his peers, that this syndrome was a sort of possession by primitive impulses and urges: but also that it was a possession with an organic basis - a very definite (if undiscovered) neurological disorder (p.92).

After Tourette's syndrome was clinically defined it was unfortunately continued to be considered a *moral* disease that should be treated psychologically (Sacks, 1990). Counseling, psychoanalysis and behavior modification were the tools used to treat this disorder, where the lack of inhibitions led to inappropriate behavior, which was considered intentional. This approach was unsuccessful, but continued into the 1970's when medications were introduced. Tourette syndrome became recognized as a chemical imbalance involving the neurotransmitters in the brain (Baron-Cohen & Robertson, 1998; Bruun & Bruun, 1994; Sacks, 1990). Due to these findings, Tourette syndrome should be considered as an organic disorder, allowing these students to be placed primarily under the category of Other Health Impaired. Kurlan (1989) defines clinical diagnosis of Tourette syndrome as (a) the presence of multiple motor tics, (b) the presence of one or more vocal tics, (c) age of onset before twenty-one years, and (d) a duration of more than one year.

Tics are brief, involuntary movements (motor tics) or sounds (phonic or vocal tics) (Comings, 1990). Motor tics generally begin approximately at the age of six, typically with eye-blinking and shoulder shrugs (Bruun & Bruun 1994). Literature provides a more complete list of motor tics that are relevant to understanding the Tourette student. Children afflicted with this syndrome exhibit, and must cope with, bizarre tics such as facial grimacing, sticking the tongue out of the mouth, a cruel gait (such as bending to one side while walking), smacking lips, picking at lint, hair, and skin, and grinding teeth, as well as whole-body jerking (Comings, 1990). These behaviors are often seen as intentional and voluntary disruptions in the school setting, this is not the case (Rosenberg & Stinger, 1989).

The spectrum disorders associated with Tourette is also worthy of significant mention. Students in the public school system must cope with more than the overt tics, as 50% of diagnosed Tourette students also struggle with associated disorders of Attention Deficit Hyperactivity Disorder (ADHD) and obsessive-compulsive disorder (Boyd & Perish, 1996).

Because school is mandatory and a rigid control situation is thought to be required to maintain order in the classroom for children with Tourette Syndrome (National Tourette Syndrome Association, 1998), this environment is the most difficult hurdle. Coprolalia, though sensationalized by the media, occurs in only 20% of the Tourette population; however, this involuntary outburst of obscenities or socially inappropriate or derogatory remarks is the most baffling and socially stigmatizing symptom (Levi-Pearl & Cohen 1994). The associated behaviors mentioned above, as well as the vocal and motor tics, are precipitated or exacerbated when the student feels anxious or stressed, as in a controlled school setting (Bruun & 1994 & Comings, 1990). The commonality of school phobia transcends all boundaries of IQ, socio-economic level, gender, and ethnicity; and it is very common in Tourette syndrome (Comings, 1990). Due to teachers' lack of knowledge regarding this disorder, phobias often result and manifest in what appears to be conduct or behavioral disorders, as well as mental illness, and even demonic possession (Peschel & Peschel 1991). Thus, problems arise as educators misinterpret Tourette Symptoms and mislabel Tourette children. Comings (1990) gives examples of Tourette syndrome and how it is misunderstood by describing the experiences of three students with Tourette syndrome:

> A bright nine year old who is failing in school because he cannot concentrate on his work
>
> A boy who is reprimanded by the teacher because he is "acting out" by constantly making noises in class.
>
> A kindergarten child who has just gotten allergy medicine from the eye doctor because of rapid eyeblinking. (P.3)

When in-service training is available to any teacher willing to accept new tools, methods, adaptations, and modifications -- as well as the information that is being generated daily -- this problem will be diminished in scope.

As inclusion becomes, by law, a common occurrence in today's schools, increasing numbers of children with special challenges find their way into the "regular classroom", and general education teachers assume the role of special educators. According Mr. Edward Chance citing the report "The Changing Character of Rural

America" (1994) 40 million students were enrolled in United States public schools in 1990. They state 40% of students attended school in either small or rural town settings. According to the National Tourette Syndrome Association (1998), one in every 1000 individuals manifests some degree of Tourette syndrome. With approximately 16 million students in rural schools, data supports that 16 to 20 thousand students with Tourette syndrome will be enrolled in the rural classroom. This addresses the importance of increased education and brainstorming strategies for coping successfully with a Tourette student in the classroom. This assists not only the, the Tourette child, but their classmates, teachers, administrators, and support personnel who are all affected by the modifications needed to provide a free and appropriate education for all students.

The following are some visual and motor tics that a teacher may notice in the classroom (Comings, 1990; Tourette Syndrome Association, 1998).

Motor	**Vocal**
eye blinking	Animal noises
eye rolling	Throat clearing
head jerking	Coughing
shoulder shrugging	Sniffing
tapping fingers, feet	Grunting
Kicking	Barking
Squirming	Spitting
facial grimacing	Squeaking
sticking tongue out	Yelling
biting nails	Deep breathing
picking at skin	Lip puckering
Tripping	Hand jerking

Eyeblinking and other eye tics are usually the first, most common symptoms noticed. All motor tics, especially those involving the eyes interfere with reading, changing visual planes from the board to the book, even from the book to a paper. Hand and arm tics also contribute to making writing one of the most laborious tasks for a student with Tourette syndrome. As a modification, teachers may give notes typed for the student and allow them to work on a worksheet rather than copy questions from a book. If possible, allow the student to use a word processor or computer.

Vocal tics are often very disruptive. Many are socially inappropriate. The teacher may arrange for the student to leave the room to release vocal tics; often it may be as simple as allowing the student to keep water on his desk.

This is just an introduction to the symptoms and classroom strategies. For a more in-depth list of modifications for student with Tourette syndrome, Attention-Deficit Disorder and Obsessive-Compulsive Disorder, explore the link below-the Iowa Health Book (1999): http://www.vh.org/Patients/IHB/Psych/Tourette/Modifications.html.

A body of medical knowledge exists for Tourette syndrome that has not been used by the general education teacher, yet science and medical labels are not enough. It has been offered that today's science humanizes the treatment and understanding of medical disorders, while language defines and influences peoples reactions regarding human beings and illnesses. It is important to remember that students with Tourette's syndrome, as a group, have the same IQ range as the population at large. However, many may have learning disabilities that are secondary to the preliminary identification of "other health impaired". Difficulties in school will arise. Educators willing to learn about this disorder will make a significant difference in the students' success. As rural educators, you may feel as though you are your only resource. It is our hope that this information will be of assistance – that you will have more insight, people to call and references to turn to for information.

Myths about TS

(Tourette Syndrome Association Inc.,1998)

Continue to explore the National Link at: http://www2.mgh.harvard.edu/tsa/tsamain.nclk

Do you have to swear to have it?

TS symptoms are highly unusual and thus easily misunderstood. Over the years, several misconceptions have become widespread. Among them are:

All people with TS swear and use obscene language -- Not True!
Only a small minority of people [20%] have this symptom (called coprolalia), and from among those who do, most mask the offensive words, for example using "F... FINE" instead of . . . another four-letter word.

People with TS suffer from mental illness -- Not True!
Mental illnesses affect people with TS no more frequently than in the general population. Also, involuntary TS movements may lead some to mistakenly assume that individuals with TS are either drunk, on drugs or threatening.

People with TS are possessed by the devil -- Not True!
It has been said that some of the Salem "witches" were actually people with TS whose medical condition was tragically misunderstood. Periodically, interest in the rites of exorcism surfaces and with this renewed interest, people with neurological disorders like TS are considered candidates for this archaic ritual.

People with TS can control their movements and sounds if they really wanted to and pointing out the symptoms will help people stop performing them -- Not True!
TS symptoms are caused by a chemical imbalance in the brain. The physical and vocal tics are completely involuntary, and can only be controlled for very short periods of time and then they must be released.

People with TS are from certain groups -- Not True!
TS is found among people from all ethnic groups.

People with TS cannot hope to lead productive lives -- Not True!
Most lead rich lives participate in normal activities and have rewarding careers.

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TRAINING RURAL EDUCATORS IN KENTUCKY: IMPACT WITH FOLLOW-UP DATA

The University of Kentucky has been providing graduate level distance learning programs in moderate and severe disabilities and early childhood special education since 1989 through the Training Rural Educators in Kentucky (TREK) Projects. In an effort to document the continued effectiveness of the program with an added emphasis on its impact on students with disabilities, other teachers, and school districts, the project director and principal investigator of the third TREK project conducted a follow-up survey in 1998 of all students who had participated in distance learning programs since 1989. The purpose of this article is to (a) review the program components of the TREK projects, (b) summarize the satisfaction data collected through the follow-up survey conducted in the summer of 1998, and (c) describe the impact data collected through that same survey.

Follow-up Survey

Overview

The Project Director and Principal Investigator adapted the survey developed by Collins (1997) for use for a second follow-up evaluation. The adapted survey contained satisfaction questions similar to those on the previous survey but emphasized the impact of the distance learning program on students with disabilities, other service providers, and school districts. Specifically the survey contained the following components: (a) demographic information; (b) degree, teaching rank, certification, and employment position prior to and following enrollment in distance learning courses; (c) rating of usefulness of each course taken; (d) suggestions for changing course content; (e) the effectiveness of each type of delivery system (i.e., on-site, satellite, compressed video); (f) suggestions for changing the method of delivery; (g) preference for method of delivery; (h) advantages and disadvantages of each method of delivery; (i) funding sources for tuition; (j) use of best educational practices before and after taking distance learning course(s); (k) number of children affected by implementation of best practices; (l) number of adults with whom the student shared information about best practices; (m) summary of systematic change resulting from taking distance learning course; and (n) personal experiences with the distance learning program. The Project Director and Principal Investigator mailed the survey to 141 former and current TREK and TREK-DL students. The survey packet consisted of an introductory letter, the questionnaire, and a metered self-addressed envelope.

Satisfaction Data.

Demographics. Of the 141 surveys mailed, 28 (29.9%) of the surveys mailed were completed and returned. In addition, 11 (8.5%) of the surveys were returned as undeliverable. A majority of the respondents ranged in age between 30-39 (50%) and most were female (82%). Upon entering the distance learning program, most of the students had degrees in a variety of areas including psychology, elementary education, speech and language, and special education.

Upon entering the distance learning program, 60% of the respondents had completed a bachelors degree, 25% a masters degree, 11% a rank II program (i.e., 30 hours above a bachelor's degree), and 7% a rank I program (i.e., 60 hours above a bachelor's degree). At the time the survey was conducted, 18% of the respondents had completed a masters degree, and 25% completed a change in teaching rank (25% for rank II and 46% for rank I). Of the students still taking coursework, 25% still planned to complete a masters degree, others anticipated the completion of a change in teaching rank (8% for rank II and 25% for rank I) and the remaining were seeking advanced degrees at the specialist (7%) and doctoral (4%) levels.

Prior to entering the TREK program, 32% of the respondents already were certified in some area of special education (LBD - 18%; MSD - 7%; Other including hearing impaired or vision impaired - 32%). Some of the TREK students (46%) were either solely or additionally certified in general education (early childhood - 4%; primary - 43%; middle school - 21%; high school - 25%). At the time the survey was conducted, 32% of the respondents had achieved an additional certification in special education, primarily in the area of MSD (21%). As well, 21% of the respondents had obtained certification in interdisciplinary early childhood education (IECE). An additional 39% of the students still anticipated that they would obtain certification in either MSD or IECE.

With regard to their employment status, 7 (25%) of the respondents worked as early childhood providers; 13 (46%) were special education teachers; 4 (14%) taught in general education settings; 7 (25%) were employed by mental health services (adult and early intervention services; 4 (14%) were related services providers; and 1 (4%) was an administrator. The majority of the respondents (54%) had 1-5 years experience in their current place of employment. Some respondents said that their employment changed either while or after they took their distance learning courses. Included in that number were 4 (14%) early childhood providers, 7 (25%) special education teachers, 2 (7%) general education teachers, 3 (11%) mental health services professionals, and 3 (11%) related services professionals. A majority (69%) of those who indicated a job change indicated that the change in their employment status was due to them completing courses through the TREK projects.

Course evaluation. The survey respondents had taken all of the courses offered through the TREK projects, with a range of 1-11 students indicating they had completed every course. Students were asked to rate the usefulness of the courses from 1 (not useful) to 5 (very useful). The range of scores across all courses was 4.4 – 5.0 with Applied Behavior Analysis, Instructional Programming in Early Childhood Special Education, Advanced Practicum: Early Childhood Special Education, Instructional Methods for Students with Disabilities and Issues in Special Education: MSD and ECSE tying as the most useful courses with a score of 4.8. (Nonspeech Communication) was identified as the least useful course, although the score was also high (i.e., 4.4). When asked how the course content should be changed, respondents made 27 suggested changes. Of those, these included additional information to the course content on the alternate portfolio process or other issues related to the Kentucky Education Reform Act (KERA) (Kleinert, Kearns, & Kennedy, 1997), behavior management, legal issues (e.g., IDEA), community based instruction and assistive technology.

Delivery. TREK courses have been delivered to 22 locations using three different modes of delivery (i.e., on-site, satellite and compressed video). The number of students who responded ranged from 1-6 at any given site. Five (12%) of the respondents attended classes on-site at a rural location, 22 (51%) attended classes at designated satellite delivery sites, and 16 (37%) attended classes at designated compressed video sites (with most students participating in classes across more than one delivery format).

The students were asked to rate the on-site, satellite, and compressed video delivery formats on a scale of 1 (not effective) to 5 (very effective). The on-site delivery format receiving the highest rating (4.8) was instructor feedback and the component receiving the lowest rating (4.0) was guest speakers. Regarding satellite delivery, advising and in-class discussions received the highest rating (4.6) and site monitors and on-campus activities received the lowest (3.5). Several compressed video components received the highest rating (4.7), including instructor feedback, television quizzes, on-site exams, class lectures, class discussions, and class activities. The lowest rated component for compressed video was library services (3.7).

The students were asked to identify their preferred distance learning format. Of the 25 students who responded to that question, 3 (12%) selected on-site, 7 (28%) indicated satellite, 4 (25%) preferred compressed video, and 7 (28%) preferred a combination approach. Four students (25%) had no preference. Students preferred on-site delivery because they had easier access to the instructor and the instructor could read students' nonverbal cues to determine if the students understood the information. Two reasons were stated for why students preferred satellite delivery. Four students stated that the site was easily accessible to their home and another indicated that they got to know other professionals from their region by taking classes in that method. All of the comments relative to compressed video had to do with the fact that students preferred compressed video because there was greater interaction between students and the instructor. Students preferred the combined approach for a variety of reasons (e.g., convenience, interaction, difference in modes of instruction).

Funding issues. Students were asked if they received tuition assistance through grants supplied by the University to cover the cost of their coursework. Eighty-two percent of them indicated that they did, and another 29% indicated that they received tuition assistance from other sources, such as the state traineeship program. When asked if they would enroll in distance learning coursework without tuition assistance, a majority of the respondents (71%) indicated that they would.

Impact Data

In order to determine the impact of the TREK projects on services to children with disabilities, a series of questions were asked on the survey. The first set of questions related to the use of best practices highlighted throughout the TREK projects. These practices included inclusion, functional curriculum, functional/ecological assessment, community-based instruction, positive behavioral support, person-centered planning, errorless learning procedures, data-based decision making, transdisciplinary teaming, family-centered programming, activity-based instruction and longitudinal programming for transition. Students were asked to indicate (a) if they used the practice before taking TREK coursework, (b) if they used the practice after taking TREK coursework, (c) the number of children affected by using the practice (if they used it), and (d) the number of adults with whom they shared the information. Next, students were asked to indicate any systemic changes at their place of employment that they perceived being a result of the knowledge and skills they gained from being involved in the TREK project(s). Table 1 shows the number of students who indicated they were using the practices before and after they took TREK-DL coursework and also the number of children and adults impacted by the TREK-DL program.

Use of best practices. It is worth noting that the majority of the respondents (i.e., greater than 50%) said that they were not using 50% of the practices before taking coursework (i.e. functional/ecological assessment, community-based instruction, person-centered planning, errorless learning procedures, family-centered programming, and longitudinal programming for transition). As well, the remaining 50% of the practices were not being used by 21% - 46% of the respondents (i.e., inclusion, functional curriculum, positive behavioral support, data based decision making, transdisciplinary teaming, and activity-based instruction).

Students were then asked if they were used the practice after taking related coursework. The highest percentage of respondents who said they were not using specific practices was 21% (person-centered planning and longitudinal programming for transition). In addition, 18% indicated they were not using family-centered programming, 14% were not using community-based instruction and transdisciplinary teaming, 11% were not practicing the use of functional curriculum, functional/ecological assessment, errorless learning, and activity-based instruction, 7% were not using data-based decision making, and 4% were not practicing inclusion or using positive behavioral supports.

Students affected. If students said that they were using a particular practice after taking coursework through the TREK project(s), they were asked to indicate the number of children with whom they used each practice. All practices were used with between 1 and 299 children with disabilities. The practice used with the largest number of children (mean = 68) was activity based instruction. Following is the mean number of children affected by the use of the remaining best practices: (a) errorless learning – 60, (b) family-centered programming - 56, (c) transdisciplinary teaming - 50, (d) positive behavioral supports - 50, (e) longitudinal programming for transition - 49, (f) data-based decision making - 35, (g) functional curriculum - 29, (h) community-based instruction - 26, (i) person-centered planning - 26, (j) functional/ecological curriculum - 24, and (k) inclusion - 20.

Other teachers affected. Students who said they were implementing best practices they learned through coursework also were asked to indicate the number of adults with whom they shared information regarding the practices. All practices were shared with between 0 and 123 adults. The practice shared with the largest number of adults was positive behavioral supports (mean = 27). Following is the mean number of adults with whom TREK-DL students shared information about the remaining best practices: (a) longitudinal programming for transition - 24), (b) inclusion - 23, (c) transdisciplinary teaming - 21, (d) activity-based instruction - 18, (e) person-centered planning - 17, (f) family-centered programming - 16, (g) functional curriculum - 13, (h) community-based instruction - 12, (i) errorless learning procedures - 11, (j) data-based decision making - 10, and (k) functional/ecological assessment - 6.

Systemic change. Last on the survey, students were asked to provide examples of systemic changes in their places of employment that they believe resulted from their increased knowledge and skills in using recommended practices. There were seven (7) comments regarding an increase in inclusive practices for children with disabilities that respondents attributed to the knowledge they gained through TREK courses. One respondent indicated that the use of *Circle of Friends* (Vandercook, York, & Forest, 1989) a person-centered planning process taught in several TREK courses, facilitated the inclusion. One student stated, "My school is moving toward full inclusion. I have shared my materials from my UK classes with my colleagues, and we all have found them to be very beneficial." There were three comments from students indicating that they saw improvement in the area of behavior management since they completed TREK courses. Three respondents also stated that their school was more proficient at data collection as a result of the courses. As well, three respondents indicated that they saw greater progress on students' IEPs because of the gained knowledge of how to do systematic instruction. Two respondents said that they believed their curriculum was more functional since taking courses on designing functional curriculum models for students with disabilities. One respondent developed a parent education program based on knowledge and skills obtained through TREK-DL coursework, another indicated that the quality of students' IEPs had improved, and a third said that the program where they work had moved from a unidisciplinary to a transdisciplinary model of service delivery since taking TREK courses. A comment by one student provides evidence of the type of systemic change TREK program faculty strive for in providing services to students in rural areas. The student said, "I believe that our school has become more efficient and proficient in systematic instruction and data collection. I also feel that many more students are included in regular classes and the doors continue to open every year."

Personal Experiences

Students related only positive experiences about the TREK projects. In general, students commented about the content and quality of the coursework, the program faculty, and the convenience of taking courses via distance learning. Students described the TREK projects as valuable, outstanding, practical, and functional. Respondents noted that program faculty were accommodating to students' needs. As well, a number of respondents indicated that they would not have completed their graduate work without the availability of distance learning coursework. They cited the long distance they had to drive to take coursework and the competing demands of family and career as challenges to completing courses offered only at a distance.

Discussion

This current follow-up survey provides useful information on how to implement distance learning programs in rural areas. As well, the survey yields valuable information regarding how personnel preparation programs can promote positive results for children with disabilities and their school systems. It is noted as a limitation that the survey only had a response rate of 29.9% (with 8.5% undeliverable). While the data gathered from the surveys may not be representative of the students who did not return the surveys, it still offers information that can be valuable in planning and refining a distance learning program. In addition, it is impressive to note that the impact data represent only a small percentage of those who have been affected by the TREK projects.

The responding students were generally satisfied with all of the coursework offered through the TREK projects, with no course scoring below 4.4 on the Likert scale. This is important information given that there should be no discrepancy between the quality of coursework offered to on and off campus students. While students evaluate all courses in the Department of EDSRC at or above the college mean, it is worth noting that distance learning courses are often evaluated higher than any course in the department.

With regard to the delivery technology, two important issues emerge. First, many technology difficulties occur that are beyond the instructor's control. This can be frustrating to students and faculty alike. Technology difficulties are an inevitable issue that must be contended with when coursework is delivered in this manner. It is important for faculty to accentuate the positive aspects associated with taking coursework near one's home, after work hours, and with tuition assistance, so that students will remain positive as well. Communicating with faculty was a second issue that was repeatedly raised in our survey. With regard to actual coursework, the issue relates to the students' ability to communicate directly with other students and faculty during class time. It is important that faculty structure distance learning courses so students are actively involved in the class. The survey respondents also frequently mentioned their frustration with being unable to reach the course instructor between class meetings. The TREK projects have been structured so program faculty are frequently "in the field" supervising students throughout the school week.

The results of this survey indicate that a greater percentage of students were implementing best practices for children with disabilities after taking TREK courses. Further the majority of these students used the practices with students who have disabilities and shared information about the practices with other adults. These results are promising and would have been strengthened by two factors. First, the original TREK project was established so students could acquire a masters degree with a focus in either ECSE or MSD. Since students from both of those programs participated in the survey, it is possible that students responded a certain way depending on their program orientation. For example, students working with young children would not likely use community based instruction. Conversely, students who teach children with moderate/severe disabilities would be less likely to use family-focused programming. Second, the current survey was mailed to all students who had taken any courses through the TREK projects. Although the practices listed in the survey permeate many courses in the TREK curriculum, it is possible that some students had not been exposed to some of these practices.

The positive results of the impact data demonstrate the need for a common philosophy and core set of emphasized practices in a personnel preparation program. All of the coursework offered through the TREK projects is rooted in applied behavior analysis (ABA). While ABA is emphasized in all courses, students also obtained skills and knowledge in other areas important to the education of children with disabilities, including inclusive education practices, functional assessment and curriculum development, family centered programming, and longitudinal transition planning. What is not captured in the survey is the heavy emphasis in the TREK projects on reflective teaching. Students are required to become consumers of current research and to conduct research in their classrooms or employment sites. The emphasis on research-based decision making impacts students' capacity to effectively implement recommended practices and to share them with others. As a result, TREK students have become agents of change in their rural districts on behalf of children with disabilities.

Conclusions

Federally funded programs are under close scrutiny to produce positive results for children with disabilities and their families. These results are captured in the Government Performance and Results Act (GPRA) (1999). GPRA outlines specific goals and objectives that all programs funded under IDEA should achieve. The goal under Part D (National Activities) is "to link best practices to states, school systems, and families to improve results for infants, toddlers, and children with disabilities" (p. 10). Specifically personnel preparation projects funded under Part D are charged with assisting "states in addressing identified needs for highly qualified personnel to serve children with disabilities" (p. 10). This survey is one attempt to gather data on those outcomes.

Furthermore, discretionary programs are challenged to evaluate federally funded programs on numerous levels. Student satisfaction and the attainment of skills and knowledge are two types of evaluative data. There are mechanisms in place at the university level for determining students' satisfaction with coursework (i.e., course evaluations) and attainment of skills and knowledge (i.e., class projects and examinations). The TREK survey extends that level of evaluation and provides more informative data to help guide the continued development and enhancement of the program. In addition, this survey provides insight into other evaluation levels. Specifically, there are data to show the high level of implementation of recommended practices for students with disabilities and the impact of the program on students with disabilities and their families. Ultimately, the goal of personnel preparation programs is achieve this result.

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TWO PRESERVICE TEACHERS WITH SPECIAL NEEDS AND THEIR RIGHTS: WHAT IF THEIR TEACHER EDUCATION EXPERIENCES HAD GONE AWRY?

As we stand on the threshold of a new millennium in teacher education and approach an era in which the demand for teachers is increasing, we must be concerned about not only the number of teachers we are producing, but also the quality of those teachers. What factors help create a positive and successful experience for preservice teachers? What if the preservice experience goes awry? An even more daunting question, "What if the preservice teacher is one with a disability?"

To respond to these questions we must be clear about our own preservice programs and the mission of that program. We must identify ways to more holistically assess the skills of our preservice teachers and to go beyond the "paper screening" that we have relied on in the past. By doing so, we can better identify prospective teachers from all cultural/racial/ethnic and/or underrepresented groups, even those who might not have been totally successful as undergraduates in the traditional academic sense due to cultural, linguistic, and/or disability-related differences. The challenge is to insure that all preservice teachers have an opportunity to achieve and have equal access to learning. We must find a way to attract and retain a wider scope of prospective teachers for tomorrow's children in both general and special education who are prepared for rural, urban, and inner city communities.

At Gonzaga University, we began with a model first developed at the University of Redlands and then we revamped it to meet our particular needs. We wanted to find a way to screen out program applicants who showed little potential for success in our program and to get to know the skills and needs of our prospective students. We also wanted to introduce the key themes of our program so preservice teachers would know up front what our program emphasizes and what we value as professionals. In particular, we wanted to introduce the concept of reflective thinking, the idea that teaching is an interpersonal and professional act, the idea of the value of developing conflict resolution skills, and the philosophy we share in our belief in the value of multiple perspectives and ways of doing. We also wanted to introduce preservice teachers to the importance of the development of their professional skills, including humor, self-knowledge, resiliency factors, collaboration, respect for the field of education, how to think on their feet, and how to collaborate. We based our model on the literature on reflective thinking (Posner was our true base), on the literature about adult learners, on the teacher induction literature, and on surveys completed by the Washington State Professional Education Advisory Board about the skills needed by beginning teachers.

We decided to structure the Lab as a Saturday morning, four-hour session with a variety of activities. We would begin with a welcome and an introduction from the Associate Dean, introducing the faculty, and explaining the rationale for the Lab. We would then discuss advising, state regulations, and distribute some of the paperwork we are required to file. We decided we wanted to teach a new skill in the Lab and decided to investigate various instruments we might use during the Lab. We considered many, including the Stress Test (Muller and Smith), the Survey on Teaching Roles, The Keirsey Temperament Sorter, the How Do You Handle Conflict? Test (Allyn and Bacon), the Learning Style Inventory (Silver and Hanson), and the Risk-Taking Behavior Questionnaire. We finally chose the True Colors materials (True Colors Communications Group, 1990) which are based on Jungian theory and are somewhat related to the Meyers-Briggs test. The True Colors materials help individuals (children and/or adults) identify four basic personality types; the materials include suggested classroom activities and videos.

The products we take away from the Lab are the state-required forms, the faculty observers' notes from the leaderless group discussion, and the reflective writing sample. The Associate Dean then reviews all the materials, meets with preservice teachers who were identified as potentially problematic, and files the materials in their departmental file.

To date, approximately 550 Gonzaga preservice teachers have completed the process. Since we initiated this process, not one preservice teacher has been dropped from the program after being admitted. We are convinced that in the cases of preservice teachers we have not admitted that our collective judgments were justified. We believe that our teacher preparation program has been strengthened by more careful attention to the admissions process because we are able to use the insights gained during the assessment as diagnostic information to better meet individual student's needs. This project has enabled us to be much more clear with preservice teachers about the ideas and values embedded in our program, including our commitment to cross-cultural teaching, our belief in the necessity of effective interpersonal skills, and our commitment to diversity. We have also been able to recruit more students from under-represented groups because of our move to a more holistic admissions process.

We developed a Fair Process Manual to apprise preservice teachers of their rights and responsibilities and to make them aware of the monitoring processes we would be using to assess their progress in the teacher education program. This document was drafted by the various directors of programs within the School of Education and then was rewritten to correct for style. The document was then sent to our Academic Vice President and to the university's corporate counsel for an extensive review. We made some changes and then published the document; it has been revised since our administrative restructuring to reflect current job titles and processes. The Fair Process Manual is distributed to all incoming preservice teachers each semester. We also developed a receipt form which preservice teachers sign to acknowledge that they received the Manual and promise to read it; preservice teachers receive a copy of that form and the original is filed in their certification file. We use a system we call "Yellow Lights" in which our faculty create anecdotal records of any incidents which caused them concern. We can then track our preservice teachers' progress and meet with them to discuss our concerns. Preservice teachers who have self-disclosed their disabilities work with our Student Disabilities Services center and faculty are notified each semester of any preservice teachers needing accommodations in order to be successful.

During the second week of the semester prior to the student teaching semester, prospective candidates must attend the Application to Student Teach meeting. This is an intensive meeting with the Director of Student Teaching, Director of Field Experience, and Certification Officer each presenting procedures for the application process. The meeting begins with an introduction by the Director of Student Teaching regarding student teaching and general information about the upcoming experience. The Director of Field Experience helps facilitate the creation of an information packet that will be given to prospective cooperating teachers. The Certification Officer takes care of the FBI/WSP process, Character and Fitness forms, and endorsement concerns.

Preservice teachers are expected to possess a 3.0 g.p.a. in their major, a 3.0 g.p.a. in the professional education courses, a 2.5 g.p.a. overall, and acceptable standardized test scores. The preservice teacher may petition to student teach following steps in our Fair Process Manual if the preservice teacher does not possess the acceptable g.p.a. Preservice teachers are expected to complete their courses in the teacher education program prior to student teaching. This coursework is closely monitored by the Director of Student Teaching. In addition, preservice teachers are expected to obtain two recommendations from their academic advisor along with a recommendation from a person who has information about their potential as a prospective student teacher. Faculty in the teacher education program give input on a Faculty Review form about the skills and abilities of each student teacher candidate. The Director of Student Teaching then locates placements for the prospective student teachers within a 20-mile radius of the university.

The preservice teachers then begin preparation for the semester in which they will student teach. An orientation meeting is held for all student teachers just prior to beginning their 16-week student teaching experience. During the student teaching experience students work closely with their cooperating teachers. Each student teacher is assigned a university supervisor. The supervisors observe the preservice teacher a minimum of ten visitations during the course of the semester. In addition, the university supervisor meets with the cooperating teacher and designated school administrator checking on how things are going for the student teacher. The university supervisors and Director of Student Teaching communicate on a weekly basis about the progress of each student teacher. The university supervisor acts as a liaison between the school and university.

If at any point during the semester a student teacher is having difficulty, the Director of Student Teaching is immediately contacted. A Remediation Plan may be implemented at this point based on input from the cooperating teacher, building administrator, university supervisor, and Director of Student Teaching. If the student teacher cannot meet the competencies outlined in the Plan, then the student teaching experience is terminated. Further help may be given to the student with a second chance given to the student in another site, usually the following semester.

Student teachers attend several seminars in conjunction with student teaching for debriefing, sharing of new ideas, and preparation of a Career Placement Portfolio. At the end of student teaching a Review Board is held to discuss the final evaluation and recommend for teacher certification. A celebration concludes the student teaching experience with congratulatory remarks for student teachers and thank yous for cooperating teachers and university supervisors.

As we look at our process for teacher candidates, every opportunity is given to accommodate students who may be from an underrepresented group, specifically disability-related differences. Gonzaga University has in place provisions for accommodations based on Section 504 of the Vocational Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA) of 1990, Title III.

During the late 1980s colleges experienced a dramatic increase in the number of students with disabilities (Vogel, S. & Adelman, P., 1993). The increase is due in part to the increase in litigation and awareness of the legal requirements with respect to college students with disabilities. The Americans with Disabilities Act of 1990 (ADA) is the prime legislative extension of Section 504 of the Vocational Rehabilitation Act of 1973. The ADA prohibits private employers, state and local governments, employment agencies and labor unions from discriminating against qualified individuals with disabilities. A student with a disability is an individual who, with or without reasonable accommodation, can perform the essential functions of the job or role in question. A college is required to make an accommodation for the person with a disability if it would not impose an undue hardship on the operation of the institution. Undue hardship is defined as an action requiring significant difficulty or expense when considered in light of such factors as the size, financial resources, and nature or structure of the organization.

Since Gonzaga University is a private institution, the requirements of ADA that apply fall under Title III. Title III prohibits discrimination against persons with disabilities in "places of public accommodation" by private institutions. The ADA, under Title III, "mandates that a provider of goods and services make reasonable modifications to its rules, practices, and policies to provide goods and services to people with disabilities, unless the modification would fundamentally alter the nature of the goods or services" (Goldberg, D. & Goldberg, M., 1993, p. 36). Disabilities Support Services personnel are on hand at Gonzaga University to help faculty and students understand and follow the mandates. A handbook for faculty is available that discusses the philosophical issues and practical challenges in educating persons with disabilities. Not all students with disabilities choose to identify themselves and seek services through the Student Disabilities Services center.

Increasingly, students with disabilities have entered our teacher education program. As we accept each of these students our first response is, "Are we providing equal access to our program?" The next response is whether the student has asked for accommodations and, if so, what accommodations would be necessary. With each case we kept the following four points in mind based on court decisions that make it clear that request for accommodation need not be provided under the following circumstances: (a) the student is not qualified for the course/experience; (b) the accommodation would result in a fundamental alteration of the program; (c) the institution is being asked to address a personal need; or (d) the accommodation would impose an undue financial or administrative burden (Robinson, W., 1996, p.4).

Although several of the recent preservice teacher graduates represent the group of students with disabilities, we have selected two preservice teachers to discuss in greater depth who needed significant accommodations. We believe both preservice teachers were successful because of the attention given to the most appropriate accommodations based on their needs. Throughout their teacher preparation, questions about accommodations were addressed and decisions were based on whether we were considering an accommodation or really a modification of the program. We were concerned about equal access to the teacher education program, not modification.

We would like to share the stories of these two preservice teachers, one who is deaf and the other with a learning disability. (Note: we changed the names in order to protect their privacy.)

Patricia: Patricia was an undergraduate student majoring in special education. She was deaf and aspired to become a teacher for deaf preschool children. Since all our students are required to earn certification in general education in addition to special education, Patricia needed to complete all our general education courses and the two in-school placements prior to placement in student teaching. The university provided interpreters to accompany her to classes; the instructors agreed to meet her needs by sharing audio-visual materials with the interpreters ahead of time, and our Director of Field Experiences made careful arrangements for her in school placements (to which the interpreters accompanied Patricia). This was the first time some of our faculty had worked with interpreters and so there was some adjusting and learning about how to best deliver instruction to meet the needs of all the students in the classroom. At the time student teaching began, we were faced with additional challenges. Patricia was unmarried and pregnant.

Patricia received accommodations throughout the application process to student teach and throughout her student teaching experience. Based on certification requirements, it was necessary for Patricia to student teach in a general education classroom. She was provided an interpreter from the university throughout the application process with two interpreters during student teaching. Particular care was taken in selecting a student teaching site. With help from school district personnel, a school with some experience with deaf and hard of hearing children was identified. In this way, we hoped that faculty would be more open to a person who was deaf. The selected cooperating teacher was one with years of teaching experience, had worked with our student teaching program in the past, and was open to a student teacher who was deaf. Then a university supervisor was selected; one who was also open to the situation, who had a number of years of administrative experience, and familiarity with the district policies and procedures. The university supervisor spent extra time working with the cooperating teacher ensuring the student teaching experience was a positive one and that Patricia could in fact teach. Patricia performed well as a student teacher and was able to overcome any obstacles that came her way.

Why was Patricia's university experience successful? Patricia was provided equal access to her education at Gonzaga University. She connected with the Coordinator of Disabilities Support Services who, in turn, coordinated the schedules of interpreters throughout the teacher education program for Patricia. Without the services of the interpreters, Patricia could not access information in her classes or student teach. The University provided this service throughout and including student teaching. The Associate Dean was aware of Patricia's needs and was instrumental in "educating" faculty prior to her entrance into class and maintaining contact with those faculty involved in Patricia's coursework. When it was time to move through the student teaching process, the Director of Student Teaching became actively involved. The student teaching site, cooperating teacher, and university supervisor were hand picked to ensure acceptance and a willingness to work with Patricia. A meeting to get acquainted took place the semester prior to student teaching that included Patricia, the cooperating teacher, principal of the school, university supervisor, two interpreters, and the Director of Student Teaching. We reviewed the expectations of Patricia as a student teacher (the same expectations for all student teachers) and discussed what accommodations might be necessary. Role playing and "what if" questions were discussed. It appeared the key to success would be with the interpreters in the class full time. The greatest initial challenge was to ensure that the interpreters only signed and did not get involved with the discipline or instruction of the children. Once past that hurdle, the student teaching fell into place just as it typically does for most student teachers. Patricia has learned to adapt well to her surroundings and takes each learning situation on as a personal challenge that she will overcome.

Bob: Bob was an undergraduate student majoring in physical education and with a minor in health. Bob was diagnosed with a learning disability accompanied with a physical disability involving tics early in his college career. He wanted to become a secondary physical education/health teacher, returning to his home state of California. Bob had difficulty focusing on his coursework. He worked best in structured settings with little ambiguity. When frustrated, Bob would react impulsively and get upset. His academic advisor worked closely with him to provide structure, continuity, and ensure that he met class deadlines. Bob moved successfully through the teacher education program. When it was time to student teach, the academic advisor and director of student teaching met the semester prior to student teaching and coordinated his field experience placement with the student teaching placement. We looked for continuity and wanted to keep Bob with the same cooperating teachers. The academic advisor became the university supervisor for Bob, again to maintain continuity and the fact that she had worked with Bob for several years and understood the accommodations he might need. During student teaching, Bob taught physical education and health. He was faced with an atypical challenge in that the school's gym was under construction that impacted the instruction. This necessitated Bob to become more flexible with his physical education instruction. The health class was very structured, to Bob's liking. He felt most comfortable in the structured setting. The staff and administration at Bob's high school student teaching site provide extra mentoring for all the student teachers, which particularly was beneficial to Bob. He, as well as the other student teachers in the school, were treated as professionals by the administration. They were asked, "You are in charge, what would you do in this situation?" This acceptance as a professional positively impacted Bob and his performance as a student teacher.

Why was Bob's university experience successful? Bob received some accommodation in his coursework with extra time spent in conference with his academic advisor, who was also one of the instructors for several of his courses. The academic advisor continued to work with Bob as the supervisor throughout the student teaching experience. The school site for student teaching was selected based on Bob's need and where we thought he would be the most successful. For many students with a learning disability such as Bob, it can be more difficult to be accepted by others. Invisible disabilities appear to be more difficult to tolerate—the disability is less obvious or understood. As indicated in a recent article in the Chronicle of Higher Education, a debate continues as to whether a learning disability may even exist for some of the college students diagnosed as such. In working with Bob, it was important for faculty to understand and accept his strengths and the areas that were most challenging to him. For most of his teacher preparation program little accommodation was necessary other than having one person regularly meet with him and consistently follow him through the program to ensure details of paperwork and assignments were completed in a timely manner. In Bob's case, the parents were also closely monitoring Bob's progress through the teacher preparation program with Bob and the parents meeting on several occasions with the academic advisor.

With extra care and attention to the individual needs of every persevice teacher, it is possible to "expand the envelope"-to consider situations that once were considered impossible or unrealistic. Providing a holistic teacher education program that includes several steps along the way to screen and assist preservice teachers creates an environment for success. Adaptations, accommodations or simply creatively looking at alternative approaches can make a difference in the success or failure of many students, particularly those with disabilities. We continue to maintain the integrity of our teacher education program holding high expectations of our preservice teachers as well as understanding that some of the preservice teachers might need accommodations to gain equal access to the program.

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WORKING COLLABORATIVELY TO ADDRESS THE TEACHER SHORTAGES OF TWO RURAL AREAS

Teacher educators will be under great pressure in the next several years to meet the demands for both the supply and quality of new teachers. They must work with state agencies and school districts in order to assure that the needs of P-12 students are met by well-prepared and committed educators. The purpose of this paper is to describe two innovative special education teacher preparation programs designed to meet the needs of rural school districts as they face the current teacher shortage. This paper is focused on the ways these two new programs were designed in order to meet the needs of school districts in rural Hawaii and Nevada. The programs are unique in the ways they blend general and special education teacher preparation with the particular needs of teachers and students in the distinct culture of rural Hawaii and the rapidly changing culture of southern Nevada.

This paper will provide specific examples of the ways leadership and collaboration between state officials, school district administrators, and teacher educators can work to provide the qualified special educators needed to make a difference in the lives of children and families in rural areas. There is a well-developed research base identifying the particular needs experienced by small and rural school districts trying to attract qualified special educators. These programs were designed in accordance with the literature on best practices in regular and special teacher education; the literature that informs our practice in terms of meeting the needs of children at risk (including the long-term ethnographic study done in Hawaii); and the research describing best practices and alternate designs for fieldwork and student teaching.

Hawaii Model

We will begin by describing a new model for preservice teacher education designed for students in rural Hawaii. In 1998, the School of Education at Gonzaga University was approached by staff of the Hawaii Department of Education (DOE) and invited to submit a proposal to offer the Master of Initial Teaching (MIT) degree in the state of Hawaii. The degree, consistent with post- modern professional educational practice, would include embedded competencies which would meet the general state standards for educating learning disabled students. It was proposed that the coursework in the program begin in the summer of 1998, with the candidates being able to complete the requirements for licensure by the summer of 2000.

The program was designed to assist the Hawaii DOE face a shortage of public school teachers. They expected they would need about 400 new special education teachers in each of the next three years. "There are 21,000 special-needs students among the state's 187,395 students" (Arakawa, 1999). Over 50% of the current special education teaching positions are held by teachers who are not licensed in special education (working under emergency credentials) and a new state law says they cannot be rehired. In addition to this, the state experiences an approximately 50% attrition rate in each two-year period (Arakawa, 1999). Another complicating factor is the decision in a recent federal class action suit (brought by Jennifer Felix) which called for the state to provide increased mental health services for disabled students by June 2000.

The program we designed to help meet these needs followed admissions requirements and program standards comparable to our MIT on our main campus. The difference was that the coursework for the teachers in our cohort group in Hawaii recognized the fact that they were already teaching and made adjustments to the requirements for fieldwork.

The cohort group we recruited included seventeen students, twelve male and six female students. All but three were of minority background -- Samoan, Hawaiian, Japanese, and African-American. Most of the students were born and raised on the island of Oahu, many in the community of Wai'anae. Although the students all possessed undergraduate degrees and some had master's degrees, none were certified in special education. The students who were currently teaching either taught in a self-contained special education classroom or taught special education students in a subject area. Most of these students recently began their teaching careers and wanted to continue teaching in the Wai'anae community.

The community of Wai'anae is located about 30 miles north of Honolulu. Many of the community people have always lived in the Wai'anae area. The need for public assistance is high in the area. According to one student, approximately 40% of the prison population either relocate to or reside in Wai'anae. There is a high teen pregnancy rate as well as drug and alcohol problems. Wai'anae is comprised of people from diverse ethnic backgrounds, primarily Hawaiian and part Hawaiian. Other groups represented are Samoan, Filipino, Chinese, Japanese, Portuguese, African-American, and Caucasian. There is a lot of pride and spirit in the community.

Wai'anae High School is the single largest employer on the Wai'anae coast. The school has been the center of the community since 1958. The school's population is close to 2000 students with over 400 identified as special education. The school employs more than 100 teachers of which 38 are special education teachers. When we began the program, only 10 of the 38 teachers were certified to teach special education. This was of particular concern to the principal as well as the Department of Education in Hawaii. It is difficult to keep good teachers at the school and even more difficult to fill special education positions. By 1999, the school anticipated 25% of its student population would qualify for special education.

The cycle of courses and course delivery system was designed especially for this cohort group. The program combined teacher preparation for both regular and special education and was created to address a court mandate that would disallow the renewal of emergency teacher certificates on the islands beginning in the fall of 2000. We recognized that the majority of students were working on a year-round school calendar and were available for our classes after school and on weekends. We agreed to hold classes at the high school in which most of them are employed, but also accepted students who were teaching at other school sites. Special arrangements for fieldwork and student teaching were a crucial facet of this program in order to honor the teaching commitment these students have made and to not be disruptive to the education of their students. The students began their coursework in the summer of 1998 and will complete the requirements for certification in May 2000; they will complete the requirements for the master's degree in August 2000.

The Hawaii DOE has been supportive of Gonzaga University's MIT program and is very anxious to see the students become certified special educators. In addition, the Wai'anae High School principal has been particularly pleased to have a program on site in which these teachers could become certified. The principal is interested in training and keeping teachers who live locally and are committed to the community of Wai'anae. The principal has been impressed by the caliber of training the cohort group has gained from the program.

We followed this effort in April 1999 with the submission of a federal Title II grant proposal written in partnership with the Hawaii DOE. The grant was funded and the first of three new cohorts began classes in January 2000. The students in these groups are from three islands and will receive funding to support their work towards teacher certification.

Nevada Model

We then developed a new model of teacher preparation for schools in southern Nevada. The program was designed to address the severe teacher shortage experienced by the Clark County School District (CCSD), a district that covers 7910 square miles and educates students in urban (the metropolitan Las Vegas area), suburban, and rural locations. The population in the district has doubled in the last ten years and in 1998, the county had a population of approximately 1.25 million. It is now the eighth largest district in the United States. Official enrollment for the 1998-1999 school year was 203,777, constituting 60 per cent of all school children in Nevada. Significant changes in the county population have impacted public education in the district. The CCSD states that socioeconomic indicators show that Clark County is above the state average in the number of minority residents (21.2%) and above the state average in the number of families living below the poverty level (11.1%). The CCSD employs over 13,000 licensed staff with more than 1500 teachers being hired each of the last 8 years.

Such significant growth in the district has brought challenges for managing existing schools. Rapid growth has increased the student-teacher ratio and led the district to design alternative school-year schedules. The district is dealing with the issues related to the rapid population growth and demographic changes. The need for teachers certified in special education has increased and that trend is expected to continue. Attempts to utilize technology in public education during this same period also impacted the availability of qualified teachers. The 1997 Nevada State Senate Bill 482 placed 5,000 new computers into classrooms in a single year. As a result, 120 high-technology teachers, called Educational Computing Strategists, were taken out of their classrooms to serve as technology liaisons, to model technology infusion, and to provide inservice activities for their schools. Consequently, the need for teachers with technology skills is urgent and growing.

The CCSD personnel have suggested there is no shortage of teacher candidates, only a shortage of viable programs to meet the needs of those candidates who can qualify for certification. The district seeks innovative strategies to attract, train, and graduate sufficient numbers of educators to meet the hiring needs of the schools. Gonzaga University accepted the challenge and designed the Master of Initial Teaching degree program so that students could complete the program and meet both certification and degree requirements.

In order to satisfy the Nevada teacher certification requirements and the Gonzaga requirements for the degree, it was necessary to require more courses and credits than in the usual master's degree. Modification to our standard MIT program were made in light of the different requirements for Nevada in the areas of student teaching, literacy education, and other courses. For example, Nevada certification requires eight credits of student teaching, whereas Gonzaga's standard MIT program requires six. Nevada's certification requires nine credits of coursework related to literacy education, whereas Gonzaga's standard program requires three credits, but recommends additional credits. Nevada gives choices for other courses, whereas Gonzaga requires them in the areas of instructional technology, for example. Gonzaga added a literacy component to the Strategies and Assessment for Instruction course, and added a Reading and Writing Across the Curriculum course to meet the Nevada certification requirements. No courses were eliminated from the standard program in order to maintain the integrity of the degree.

The modified MIT program was submitted to the Nevada Board of Education for review and was approved in October 1999. We are currently completing a recruiting campaign and plan to begin classes with the first cohort in Spring 2000.

We also requested approval from Nevada to offer an alternate route to certification program. This program would be available only to those people who are employed by the CCSD with emergency credentials. This route would meet the Nevada teacher certification requirements and the Gonzaga requirements for the MIT degree, but would be offered in a compressed time period and without the need to require the full eight units of student teaching. We have not yet received approval for this program.

Conclusion

Designing and providing these programs has been an exciting and challenging adventure. The faculty report they have really enjoyed their interactions with their students and with the youth who attend Wai'anae High School. We have all been thrust into a different culture and have had an intimate experience with the joys and challenges of working in a large, rural high school. We have had to learn quickly the rules and regulations used by the Hawaii and Nevada Departments of Education and to adjust and readjust our program and plans in order to meet the needs of our students so that they could be effective with the special needs students of Hawaii and Nevada.

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Technology

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CAN EXPERIMENTATION IN ALTERNATE DELIVERY SYSTEMS FOR COMPETITIVE DEBATE AND SPEECH EVENTS THROUGH TELECONFERENCING PROVIDE SERVICE TO SPECIAL/RURAL POPULATIONS?

Experimentation in alternate delivery systems for competitive debate and speech events through teleconferencing may provide service to special/rural and broader populations by exploring concepts regarding access to distant populations for persons who might not otherwise be able to make use of traditional delivery systems that require time, travel and expense. Inevitably developing technology will be utilized; hopefully this sharing of experience will facilitate greater utilization sooner.

With this in mind, we see technology as a way to capitalize resources to a maximum benefit for participants such as children, families, students and educators. Leadership in technology provides guidance and piloting a course of action for future benefit. Technology is by definition practical in nature, but technology is developing faster than educators can assimilate its benefits into practice. Leaders in education must become capable with advancing technology as a significant communication tool for positive purposes.

Perton (1998) argued that "teleconferencing is coming of age". Sisk (1995) noted that "teleconferencing is a conference of individuals in different locations" and goes on to state "teleconference could play a major role in students' education experience". Communications services at Stanford University (1992) noted in a discussion of teleconferencing services at Stanford that "it seems it's always the case that people have too much to do, and too little time and money to accomplish it. So when an alternative arises that can help save hours or dollars, or, even better, both, it's worth a look".

Ash (1999) noted that "distance learning frees students of the confines of classroom...and enables them to overcome geographic distance, and balance family and work schedules with schoolwork". Rawlings (1998) discussed technology and noted that accessibility for the disabled "goes far beyond providing ramps and elevators in buildings, cars, airplane, and buses". Rawlings noted that people, such as those with multiple sclerosis, may not be able to travel even if access is available. Rawlings said a criterion of technology is to ensure that disabled participants "have both a virtual presence and an equal presence as regular participants." Webteacher (2000) discussed CU-SeeMe sites that "could be used with substantial effect in K-12 education". Johnson (2000) discussed GraceCom at Grace Church in San Francisco where "new media and emerging technology" serve their purposes through webcasting and teleconferences. Johnson noted advancements coming "within three years" will increase quality and "will expand the reach of programming to individual viewers".

Therefore technology provides a number of benefits. Rural education theory supports the need for distance to be covered and opportunities accessed. Special education theory supports the need to bring mainstream activities into the real of possibility for special populations. Technology theory provides the tools even before practitioners realize the use. Distance learning theory pushes technology and provides greater learning opportunities than ever before. Teleconferencing practice brings technology to a personal level. For students of the twenty-first century, television is their world and is a mode of communication that captures the imagination as to how it will evolve. Educational and communication research explores the cutting edge of all these possibilities.

Competitive debate and speech events provide an area of analysis to see how emerging technology may be applies. These competitions involve expense, time and travel. High school and college students on debate and forensics (individual speech events) teams travel on weekends to distant locations. The cost, responsibility and time factors play a significant role in the budgets and lives of the educators who coach those teams. Interested participants often to not follow through on their interest due to the significant commitment involved in time and travel. From the rural perspective, the time and travel is even more significant. Finally, populations with special needs are not often found on the traveling teams. These students therefore are missing the benefit of interscholastic and intercollegiate interaction. Small school districts, budget concerns, overworked faculty with family commitments, the feeling that debate and forensics are too difficult to learn, and distances to competition all are barriers.

Technology seems to be the answer. Alternate delivery systems using technology such as email, webcasting, interactive computer links, satellite programming, internet, distance learning all have benefit. Teleconferencing techniques seem particularly suited to the needs of debate and forensics activities. Teleconferencing makes possible greater participation, especially for connecting distant participants. Persons with a variety of talents would be able to compete at their own level. Rural students would be able to access like-minded persons at distant locations and compete in debates and showcase forensic skills. In short, teleconferencing makes possible face-to-face communications that transcend distance, overworked educator's load and limited resources.

To explore the possibilities more specifically, we will look at a particular application of teleconferencing technology in the debate and forensics community.

The concept of the experiment was stimulated in 1998 when the International Public Debate Association begin its first international e-mail debate tournament. The idea was that participants from around the world could be linked in a written email debate. The Henderson State University Debate and Forensics team participated and won third place debate sweepstakes in email debate with two debaters qualifying for elimination rounds and winning trophies. The coach received an award for exemplary email judging by a juried panel. Therefore the first experience with technology was positive. But what the email process also stimulated was the interest in technology as a tool for debate and forensics activity.

The Henderson State Debate and Forensics team discussed technology and its possibilities at its team meetings. Henderson State University has a distance learning center on campus in conjunction with the Dawson Educational Co-operative that distributes service to a number of sites. The team approached, Ana Caldwell, the Henderson State University Director of Profession Development Partnership and Off Campus Programming. Indeed the technology was on line for courses to be sent to sites, and the debate concept seemed to be able to work. Sandra Hardage of the Dawson co-operative supported the concept and the logistics were arranged. On February 17, 1999, two advanced debaters from Henderson State University challenged and competed with two advanced debaters from University of Arkansas- Montecello in a National Parliamentary Debate Association format.

In April of 1999, this author was on a panel at the IPDA national conference. Participants from St. Mary's University, Louisiana State University-Shreveport, University, and the University of Arkansas-Montecello discussed the email debate. Then alternate delivery systems were discussed. The potential for technology to serve the traditional debate and forensics community was evident. We concluded that the future would be one where interactive computer and teleconferencing technology would be one to facilitate further technology formats for debate.

In fall 1999, a student with visual disabilities discussed the possibilities of adding the debate practicum practicum to his schedule to develop his talents as a prelaw student. Practicum serves the needs of (1) competitive students, (2) communication majors who need practicum credit, and (3) students who wish to develop their talent and knowledge of debate and forensic activities. This third group usually learns by competing on campus and may not experience intercollegiate competition. Here teleconferencing serves a great purpose: (1) competitors can challenge talent at an equal level, (2) competitors who may never connect outside of the campus gain that experience, and (3) persons with a variety of limitations can feasibly experience the learning and competition that is traditionally experienced through weekend travel to distant sites.

Teleconferencing in this case involved the established linkage of distance learning sites. The technology is in a room on the Henderson campus that is the distance learning classroom. The Dawson co-operative manages the room and set the appointment to connect the room through a hub in Little Rock to the Montecello site. At both distance learning classrooms technicians turned the equipment on and completed the linkage. Controls in the rooms managed the equipment in terms of switching from site to site and what data was presented on what monitor. The Henderson site had two monitors and a projection camera that allowed zoom in and out from the lectern in front of the room. The room had fixed seating for the observers/audience. The Montecello site used a camera on a tripod in a classroom configured with conference tables and a lectern.

As the debate round began, adjustments were made to put one monitor on the speaker and one monitor onto the audience at the second site. The speakers then were able to address the local and distance audiences. This adjustment made the speakers more comfortable. But the situation was different than the traditional method of having both teams in the same room. The debate round took on a media element.

Discussion at the end of the round revealed a number of dynamics that serve as results of the experiment. Immediately the quality of the equipment plays a role. The ability to zoom in and out added to the impact of the speakers. In a real competition, both sites would need equivalent quality and abilities. Some of the respondents noted that vocal quality as well as video quality did not seem equal. Certainly an ethics issue arises that each competitor have equal ability to send and receive communications with equal technology. Neither competitor should benefit unfairly based on differences in technology or technological manipulation.

A further point was that the television presentation drew in audience attention. Students today are video literate and video conditioned. The debate round took on its own real world life. Observers were draw to the screen. Seeing fellow debaters on television increased attentiveness.

Another important observation made by this researcher was that the level of intensity was increased by teleconferencing. The close up nature of the head shots intensified the clash in the debate round. Total focus went on the debater and the level of competition seemed to be at a higher level than in a traditional classroom format. All four debaters engaged at a more intense level as the round progressed. In short the clash of debate seemed to be intensified by the teleconferencing format.

Thus, round was beneficial to the experienced debaters in the teleconferencing experiment. The four debaters met at on site traditional competitions since the first teleconference debate and that the experiment was part of the on-going competition between teams and colleges. They accepted the teleconferencing debate as part of the whole season experience.

All participants agreed that when the round ended, they enjoyed being on their own campus with the ability to be home quickly. A major benefit is that the rounds can be conducted during the weekdays and during class times. Often students compete Friday through Sunday from morning to night and then face three to fifteen hour trips home.

In short the experiment worked and continued efforts planned. The debate practicum on campus now includes the option to link with other sites to debate students from other locations. Novices and persons not able to travel because of work, school and family may compete with students from other campuses. As was stated earlier, a novice debater with a visual disability has the opportunity to grow beyond the competition in the practicum setting on campus with teammates.

We are still brainstorming future uses of this technology. Certainly disability services on our campus is interested in what we are doing with a student supported by their program. Hopefully more students will be encouraged to participate in debate and forensics activities. Students with special needs might have access to this element of high school and college curriculum and activity.

Implications for future plans are abundant. Technology professionals are supportive. Distance learning takes on a new face when activities like debate and speech activities are added to the portfolio. Linkages within a state and beyond are available now.

The Henderson State University debate and forensics team is considering hosting a statewide teleconferencing tournament. Arkansas colleges and universities are networked. The team plans to start with individual rounds with each school to break the ice on the details of who, where, what, when that accompany the first time through a process. Then we will work out the logistics of hosting a teleconferencing tournament. Apparently, in-state networking is cost effective

Another project is to provide rhetorical models of speech events for new high school talent across the state. Currently the Arkansas State Communications Association supports a Demonstration Day in the fall to prepare high school coaches and their students for the upcoming season. Traditionally the students are bussed to the Henderson campus and the workshops are on site. Experienced high school coaches and students provide model examples of each event (oral interpretation, public speaking, mime, reader's theater, radio speaking, duet improvisation acting, etc.). Teleconferencing could bring the master students and coaches into contact with a networked demonstration day or focus on one developing school as is necessary.

Finally, we believe this sense of experiment should go out beyond the state limits and even national limits. The fun of the email debate was that Arkansas students debated with people from around the United States and other countries, at low cost and minimum of time.

Technology is here and we will benefit. Our increased utilization might as begin sooner than the inevitable future.

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COMBINING DISTANCE EDUCATION AND WEB APPLICATIONS FOR A COURSE ON COLLABORATION IN SPECIAL EDUCATION

The field of special education is currently faced with shortages of trained personnel, and federal projections do not see this need diminishing in the near future (Boe, Cook, Bobbitt, & Terhanian, 1998; Office of Special Education Programs, 1998). Rural school districts, in particular, find it difficult to recruit and retain teachers of students with both high and low-incidence disabilities.

In an effort to meet the needs of children with disabilities for well qualified teachers, colleges and universities are using a variety of course delivery options to prepare preservice teachers and to provide continuing professional development to those teachers already in the field. Televised distance education courses are commonly used to support the preparation of special education teachers who live and teach far from university campuses (Spooner, Spooner, Algozzine, & Jordan, 1998). In addition, many teacher education programs are incorporating web-based or web-enhanced courses in an attempt to reach non-traditional students and/or practicing teachers interested in developing skills in special education. Web components of courses also are seen as methods of introducing teachers to the power and potential of the Internet as a resource for their teaching.

A further trend in recent teacher education literature in special education is the use of case-based teaching, similar to that used in medical and business colleges (Anderson & Baker, 1999; Elksnin, 1998). Such case studies may focus on a child with disabilities and ask prospective teachers to make decisions about the child's education. Others take the perspective of a teacher who is grappling with a decision or issue related to a student, a class of students, or an aspect of working with other professionals or parents. Case-based teaching is thought by professionals to be an effective way of enhancing the preparation of special education and general education teachers (Elksnin, 1998).

This article describes efforts to unite the three, above-mentioned methodologies of televised distance education, web-enhanced course components, and case-based instruction in the delivery of a course in special education. The section that follows describes the development of a web site called the "Teachers Lounge." Also presented is information describing the effectiveness of the site as assessed through student surveys prior to the introduction of the web component, as well as summative student evaluations of the web-based activities. The final section of the paper describes what was learned as a result of the collaboration involved in developing the site: ways of improving web activities and the potential of web-enhanced instruction in courses such as the one described.

Conceptualization of the Teachers Lounge Web Site

In the spring semester of 1999, I taught a course on collaboration and consultation in special education via televised distance education. The course was dual-listed at the graduate and undergraduate levels; therefore, it could be taken by preservice seniors or by practicing teachers. While the largest group of students in this televised course was in the on-campus class, there were also students in five remote sites throughout northern Nevada. In past semesters, group as well as individual assignments had been required for this course. Group assignments had not posed a problem when the course had been taught in a traditional, on-campus format. However, the logistics of offering such a course via distance education meant that students attending class at "Site A" could only collaborate with the other students in "Site A." There would be no practical or economical way for them to collaborate in any meaningful way students in the campus-based section or with those at "Site B," unless some non-traditional means of collaboration were developed.

I began the search for a method of enhancing the course with only vague notions of a web site. In retrospect, there would have been many ways to accomplish this goal, including the use of an e-mail based chat room or a listserve. However, I was interested in experimenting with enhancing the course through the use of the Internet.

In examining professional web sites related to special education, it seemed that many of the sites could be described as "a book with a different cover." The sites appeared as text information with links to additional text information. Largely, these included re-formatted flyers, brochures, or books. Graphics on many of the academic web sites consisted of clip art. They added color or interest to the sites, but they were not well integrated into the actual function of the sites (in contrast to many commercial or educational sites for children).

With a vague desire to use graphics in an integral way, I determined that the theme of the web site in the collaboration course should be a "Teachers Lounge." This is where teachers often gather and discuss students, instruction, and other issues facing education. It is where collaboration, especially informal collaboration, occurs at many schools. Collaboration could center on a number of case studies or vignettes related to children, and that these cases could grow or change over the semester. In addition, the site might be used to post class information or exchange general views not related to particular cases.

In order to develop the web site, I enlisted others with the technical and graphics expertise. We combined a series of introductory pages with a FileMaker Pro database in order for students to both enter and access their contributions to the case studies or vignettes. Interested readers are encouraged to visit the site in order to understand more fully its workings and its limitations. (Go to http://134.197.92.43/CI473/index.html).

Creating Teachers Lounge Web Site

The database side of the Teachers Lounge web site was created by Dr. Michael Warner (professor of special education) using FileMaker Pro software (FileMaker Inc., 1998). The database contained the following fields: date, time, student name, E-mail address, vignette selected, subject, and the message. Each time someone made a contribution, a new record was created and stored in the database.

The entry pages for the course web site were created using HomePage 3.0 (FileMaker Inc., 1998). This HTML editor was chosen because of its ease of use and because it was designed to be used in tandem with FileMaker Pro. Specifically, HomePage allows the user to write tags in HTML code that support communication between the web page (front end) and the database (back end). When the initial set of pages was completed, the pages (as HTML files) were imported into GoLive Cyberstudio 4.0 (Adobe Systems Incorporated, 1998). Dr. Dainn Laing (instructional developer and graphic designer) developed the supporting graphics.

The final design of the homepage presented a door with the words "Teachers Lounge" above it. Banners on the wall beside the door were buttons that, when clicked, opened other pages, such as the university homepage and the page for other databases within the College of Education. Posted on the door of the Teachers Lounge was a notice that invited members of the class to READ. Directions for understanding the site navigation and site logistics were given in the READ notice. Passing the cursor over the notice caused the hyperlink hand to appear. Clicking on the notice brought up a new page with site instructions. Information at the end of the READ notice gave the reader instructions for entering the Teachers Lounge (the next page). It was not necessary for the user to go to the READ notice each time. Clicking on the doorknob at any time permitted entry into the lounge.

The next page was a photograph with graphic enhancements of the university instructor and a colleague sitting at a table in a real teachers lounge. Pictured behind them in the lounge were a bulletin board (real) and a graphically inserted file cabinet, drawn to look as if it were part of the lounge setting. Passing the cursor over either of these two objects caused a web "rollover" to occur where text information appeared identifying the object as well as the traditional hyperlink hand. Clicking on either the bulletin board or the file cabinet brought up additional pages.

Clicking on the file cabinet resulted in the appearance of four file folders, each with a name of a fictional student name. Clicking on a file folder tab took the user to the content information for that vignette. Each vignette page had a drawn graphic that portrayed the student who was the focus of the case study. In order to give students at all six distance education sites focus for their collaborations, the fictitious vignettes or case studies were created about four children at different grade levels: kindergarten, fourth grade, seventh grade, and eleventh grade. Two of the children were specifically identified as having disabilities, while two were described as having difficulties but here not specifically mentioned as disabled. Class participants selected one vignette to respond to over the course of the semester. The vignettes were written from the perspective of a school professional who was concerned about the student and who came to the Teachers Lounge to seek advice or information.

Four times during the semester, the vignettes were updated. These updates consisted of the school professional receiving a phone call from a parent, the results of testing, or of some school occurrence that led to more questions or concerns. In this manner, the students had reasons to add contributions to the web site throughout the semester.

As part of the course requirements, students were asked to contribute to the web site at least four times. Five points could be earned for each contribution (up to four); therefore, participation with the web site amounted to only about 4% of the students' grade for the course.

In addition to updates and student contributions, other professionals were invited to add their perspectives to the discussions of the vignettes. For example, the director of the university's Office of Student Support Services made comments related to the case of the eleventh grade student with multiple disabilities who wished to go to college. A professor of literacy studies commented on the instructional approaches that might be taken with a fourth grade student with specific learning disabilities.

Student Reactions to the Teachers Lounge Web Site

A total of 56 students were enrolled in the course at all six sites. The demographics of the students are presented in Table 1. Students were asked to complete a brief survey about their use of the Internet prior to the launching of the web site. Fifty-three students (95%) completed the anonymous survey. Students were evenly divided on whether they would be accessing the web site at home, at school (computer lab or library), or at both places. It was more common for the on-campus students (who were largely undergraduates) to use their personal computers, rather than those at a school, lab, or library. Practicing teachers were apt to use their classroom computers, if these computers were connected to the Internet. The majority of students reported using on-line services daily or several times per week for E-mail, research, and/or services such as banking or travel. Most students had never taken a course that had an Internet or web site component. However, the vast majority of students reported little or no anxiety about the Internet component of this course, although three students stated they had very high levels of anxiety about the using the web site.

At the end of the semester, students were asked to anonymously evaluate the web site component of the course through a questionnaire. A total of 91% of the students completed this evaluation. Several major themes emerged, defined as similar comments mentioned by three or more students. The evaluations was divided into questions about the vignettes, the bulletin board, and changes in the students' level of comfort or anxiety about using an interactive web site.

Table 1
Demographics of the students enrolled in the collaboration course

	On-campus	Site A	Site B	Site C	Site D	Site E	Total
Distance from campus	--	80 mi.	165 mi.	130 mi.	30 mi.	60 mi.	
Students Enrolled	27	9	5	3	9	3	56
Preservice teachers	24	0	0	1	3	2	30
Practicing teachers	3	9	5	2	6	1	26

The questions about the vignettes revealed that approximately equal numbers of students responded to each of the four vignettes. One student chose to respond to all four vignettes and one student reported reading but not responding to any of the vignettes. The students also were asked to comment on the most interesting or effective aspects of the vignettes; the least interesting or effective aspects of the vignettes; and their suggestions for improvement of the vignette activities. Several positive and negative themes emerged from these questions.

On the positive side, students enjoyed seeing others' perspectives on the situations and comparing them with their own. Students commented about the interest, realism, and quality of the vignettes. Additionally students enjoyed the comments made by professionals from outside the class and recommended adding more of these.

On the negative side, students wanted more information to react to through more frequent updates of information or having more vignettes to respond to. On a related note, they also disliked having to read all of the other students' comments (due to the large number of students enrolled in the course and the small number of vignettes). Additionally, comments were made about difficulties in accessing the site at various times over the semester.

Questions about the bulletin board component of the web site indicated that these class announcements were not accessed as often as the vignettes. Almost 40% of the students reported that they either never checked the announcements or checked them three times or less during the semester. Eleven specific suggestions were made for improvements to the bulletin board; however, only two of them (posting reminders about assignments that were due, and announcing events related to special education that were occurring throughout the area) were suggested by more than one person.

Thirty-seven students indicated that the activities increased their comfort about using an interactive web site or made general positive comments about the site. Twelve students reported that the assignment did not change their level of comfort, while one student indicated that this was a very difficult and uncomfortable activity.

Suggestions for Improving Web-Based Course Components

Web-based course components, such as those described here, have a great deal of potential as enhancements to distance education courses in special education. Case studies seem to be an effective focus for web-based interactions of students in a course such as the one described. However, it is vital that the cases or vignettes created for the web site be interesting, realistic and dynamic. The drawings of the fictitious students were appreciated, but other elements such as student records, test results, and Individual Educational Plans would have enhanced the cases. Two of the practicing teachers enrolled in the class reported that collaborating on a fictitious case was not helpful to them when they were faced daily with real students. Others, however, reported that the cases helped them make applications to their own students.

Students were asked to respond to the vignettes at least four times during the semester, but no other parameters were put on this requirement. As a result, some students reported that they often forgot to check the site regularly. About six students (all preservice teachers) made all four of their responses within the last two weeks of the semester, obviously not appreciating the collaborative emphasis of the activity. In the future, additional guidance will be given to the students, including more discussion of the site and written suggestions/guidelines for the students' responses.

The original goal for the web site was for it to negate the barrier of distance among the members of the class. Soon it became clear that the site had much more potential. The most obvious extension of the site is to use it for collaboration among the members of more than one class, in more than one academic discipline. Currently, plans are underway for graduate students in a course in school counseling to also contribute to the site. It is not much of a stretch to include students in a variety of related fields such as general education, school psychology, educational administration, speech pathology, etc. In this manner, professionals of varying perspectives are involved in collaborations centered on students with special needs.

Since location is not a limiting factor in the use of a web site, students from other universities or regions of the country could also be involved. This would enable students to hear voices that reflect diversity not represented in a local community. Former students or practicing teachers who are not enrolled in the course could contribute to the case studies or be asked to relate the vignettes to situations in their own schools. The authors of the course texts, nationally known authorities in relevant subjects, and policy makers can all be invited to contribute to discussions on a course web site.

In conclusion, as we experiment with this powerful new technology, many of us will need considerable support to be able to realize our visions. The creation of the Teachers Lounge web site was a collaborative effort, and it would not exist without the work of several persons. As colleges and universities make more use of the Internet for the complete or partial delivery of courses, instructors must have access to other professionals with supporting skills. The most effective and rewarding components of the development of this web site came as a result of the collaboration, brainstorming and speculating that came from working with other professionals.

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CREATING A COMMUNITY OF DISTANCE LEARNERS: PUTTING TECHNOLOGY TO WORK

Learning at a distance can be challenging for university preservice special education students living in rural sites located miles away from the university campus. Isolation and distance from peers, professors, and university resources combine to create a sense of "aloneness" for these students. The Department of Special Education at Utah State University (USU) is utilizing a variety of technology delivery systems in an effort to overcome this sense of "aloneness" by creating communities via technology. Distance education students are linked to a variety of supportive university learning communities through technology.

Creating Communities of Distance Learners

Many of the students enrolled in the USU distance education, special education degree/certification program live in remote rural areas located several hours from the main university campus. They attend classes via distance education at local branch campuses. Most students earn their entire university degree along with teacher certification without leaving their home communities. Distance education students enroll in the same classes as on campus students. Classes are delivered via a variety of distance education technologies, such as, a one-way video, two-way audio satellite delivery system; a two-way audio and video state compressed video EDNET system; and a two-way audio and video Internet delivery system, Sorenson Envision.

The majority of the students enrolled in the program are older than traditional on campus students, which is similar to enrollment in distance education programs in other states (Online, 1988). Most work at least part-time and have family commitments. University courses that do not require them to move or disrupt work and family situations are appealing, reflecting a preference of many adult learners (Miller, Smith, & Tilstone, 1998). Over 90% of the students in the USU program are female. This percentage is higher than the national average of female students enrolled in distance education programs. According to Bremner, 1998, 66% of the adult distance education students are female, and about 80% of those students have children.

The benefits of distance education programs for nontraditional students include access to a university degree program without disruption of work and family commitments, availability of courses in the evening, and convenient location of the courses (Matthews, 1999). An additional benefit for students in the USU program is the promise of improved employment opportunities. Utah, like many other states in the U. S., is facing a critical shortage of special education teachers (Lauritzen & Friedman, 1993). Students enrolled in the USU program most often end up employed as full-time special education teachers even before they complete the program and become certified to teach. Local school districts have become partners in the distance education program. Districts encourage uncertified personnel to enroll in the program, provide training opportunities, and recruit graduates. They have a vested interest in the success of the program. They are anxious to hire teachers who already have a commitment to the community, who are at a point in their lives where they want to establish a career path, and who are mature in age and experience.

Because students in program are employed and have family commitments, they face added pressures. Many are returning students who are not confident as university students and have never been distance learners. When added pressures of family and work are combined with a lack of confidence and experience and the isolation that distant learners experience, it is not hard to understand why students feel high levels of stress and even leave the program. Because university professors and advisers are not accessible in the local community, opportunities to increase interactions with students through the use of innovative technology has been explored and found to be helpful. The use of technology connections has also been helpful in bolstering the level of support students feel as they cope with stressful and challenging learning situations. Distant student learning and support have been enhanced through the use of an easy-to-use, low cost, Internet-delivered Sorenson EnVision technology connection.

Distance learners can become involved in multiple communities of learners via distance education systems that allow them to interact with university personnel as well as fellow students. Barth, 1997, advocates building communities of learners in school settings as a means of improving schools. The same concept of building communities of learners applies to distance education programs. Learners become members of the learning community by working together thus leading to improved learning. Technology allows that working together to happen. Examples of how distance learners are involved in various learning communities follow.

Advising and Mentoring Students

While it is not feasible to have a special education advisor at each site, special education degree/certification students at remote sites can receive program advisement and support via the EnVision technology. EnVision systems are placed at each USU community center. Students set up appointments to meet face-to-face with their advisers over the system. They are able to plan their programs, receive answers to questions, and explore solutions to problems. Being able to talk face-to-face enhances the interactions and connections between the adviser and students. Opportunities to interact are also increased due to the fact that the student doesn't have to wait for the adviser to make an advising trip to the community.

Tutoring Individual Students

On campus university professors usually have established office hours when students can come in for individual assistance and tutoring. Distance learners do not have that option and often feel that they are not part of the university learning community. They can obtain assistance by telephone or email, but do not have the opportunity to meet face-to-face with professors. The EnVision technology now provides an opportunity for that to happen. Because there are systems in each community and the connection is Internet-delivered, opportunities to meet face-to-face with professors are possible. EnVision systems can be placed on carts and moved from office to office as long as Internet connections are available. One system serves many professors.

One university professor provided this example. She was working with a student on an assignment to be completed by accessing professional journal articles from the university online library. The student had never accessed the online university library and was struggling with completing the assignment. The EnVision system was connected in the computer lab. The student pointed the camera over his shoulder, and the professor guided the student through the assignment, just as if the professor were in the computer lab looking over the student's shoulder.

Conducting Study Group Sessions

Students learning at a distance need support in the same way that students on campus need support. Students at a distance, however, do not have access to professors and fellow students in the same manner as students on campus. To provide an added level of support for students and build learning communities in remote sites, study groups are formed in each site to discuss course content, prepare for quizzes and tests, and answer student questions. In the past study groups were conducted by facilitators living in the remote sites and by professors who traveled to remote sites.

Professors are now using the Sorenson EnVision technology to hold study group sessions. Students are also able to link to each other and form student learning groups via the EnVision system. Because EnVision utilizes a direct, low cost Internet connection, access and scheduling are simplified. This increases the opportunities that remote students have to work together as learners. Students are no longer isolated in the remote sites. Students can also work on course assignments together through the EnVision application sharing capabilities.

Delivering Didactic Courses

By utilizing multiple Sorenson EnVision units, university professors teach to many remote student locations at the same time. Because Sorenson EnVision connections are made directly over the Internet, there is no third-party routing system involved. This eliminates the need to schedule course delivery time through third-party routing organizations. It is also greatly expands the time available for scheduling courses because only the originating and receiving sites must be available. Another added benefit is that professors are able to see all remote site students at the same time on monitors placed at the originating site. This increases the sense that the professor is teaching face-to-face to all students in all sites. Courses are taught in much the same manner as the more costly satellite and compressed video systems with the added benefit of seeing all students at the same time.

Supervising Practica Courses

USU Department of Special Education personnel use the Sorenson EnVision system to supervise students enrolled in university practica courses in remote sites. Students enrolled in the practica courses are required to teach students in public school classrooms. Supervision of the university students as they teach is difficult due to the fact that the practica sites are located in some instances more than four hours away from the university campus. By using the Sorenson EnVision technology, university professors are able to view practica students teaching in the remote site classroom from computers located in their offices and provide immediate feedback to them.

Opportunities to observe the practicing teachers are increased as well as the amount of feedback that they receive. The use of the technology is a cost and time effective method of providing feedback to practicing teachers. It also increases the likelihood that the teachers learn effective instructional skills and provide improved learning opportunities for the students they teach. Local schools also receive the benefit of added personnel that in the past only schools located near university campuses received. Local teachers are also able to develop a connection to the larger university learning community as they work collaboratively with university professors.

Training Local Cooperating Teachers

Cooperating teachers in remote sites need to be trained to work with university the special education practica students who learn to teach in their classrooms. In the past teachers had to leave their schools to come to the university to be trained. Utilizing the Sorenson EnVision system, professors train local teachers in their communities. This reduces time out of school and increases the opportunities for training sessions.

Sorenson EnVision Technology

Despite the development of new technologies designed to distribute information, the most effective way to teach and interact with students is still face-to-face. The Sorenson EnVision technology allows face-to-face interactions between teachers and students without ever having to leave the office or classroom.

Interactions are possible from a distance by using an Internet connection and the EnVision computer software, video capture card, camera, and microphone installed on a Windows personal computer (PC). The EnVision set up allows the capture, compression, and transmission of data needed to deliver video, voice, and application information to share PC programs. A media production facility can be utilized if: (a) media elements are added to the instruction; (b) multiple sites are involved in the instructional delivery; or (c) the teacher wants to see multiple sites simultaneously.

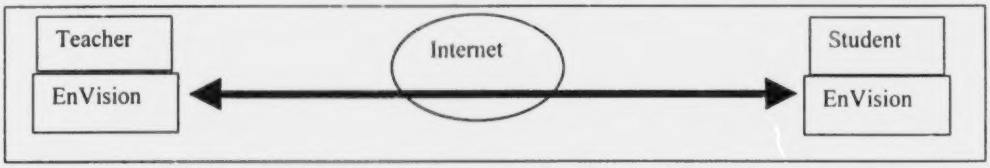

Figure 1. Illustration of the Endpoint connection between teacher and student.

Sorenson Vision manufactures the EnVision delivery system. EnVision is easy to use. It's also low in cost compared to other systems of less quality and network adaptability, which is vital for use on the Internet today. EnVision can be installed in a simple process that takes about 30 minutes for someone comfortable installing a PCI card in a computer. EnVision uses the Internet to transmit data so there are no hourly communications costs. Educational institutions and the remote student locations pay only for their Internet connections.

Current Ability of the Internet to Deliver Video and Voice

Efficiency in data transmission and reception is important because of Internet congestion (Comer, 1995). Bandwidth is a measure of ideal data transmission potential (in speed) not the actual data rate at any moment in time. Congestion on the Internet between any two points can limit the data rate and affect the quality of video and voice reception (Goralski, 1998). For these reasons, it's important that any videoconferencing system used for conversation be efficient at transmitting and receiving compressed video and voice. The system should be highly functional in a low throughput data transmission range.

EnVision operates with a unique compression technology. EnVision always attempts to accommodate the actual throughput and deliver good quality 15 frames per second video and robust voice performance. EnVision's flexibility to produce good video quality even at very low data throughput rates is especially valuable when conducting videoconferences to rural and international locations. Due to these complications, most videoconferencing system manufacturers do not claim that their products function well on the Internet. EnVision's manufacturer promotes EnVision's flexibility to transmit video and robust voice in very low data throughput environments, like the Internet. EnVision is not recommended for use with analog modems. The connection can be a DSL modem, cable modem, ISDN, Frame Relay, or any other digital modem with a data rate going both in and out of each site of 128 KBPS or higher.

Linking One Teacher to Many Sites

A Multi-Conferencing Unit or MCU is used to link one teacher to many remote student locations at the same time. EnVision combines with standard audio and video equipment to create an MCU. The reasons for this are to: (a) simplify operation, (b) insure the highest possible video and voice quality to each site, and (c) maximize flexibility in data throughput rates for remote student sites. Using an MCU to connect remote sites with a teacher can be expanded to an unlimited number of sites as long as adequate physical facilities and throughput of data is available at the site where the MCU and usually the teacher is located.

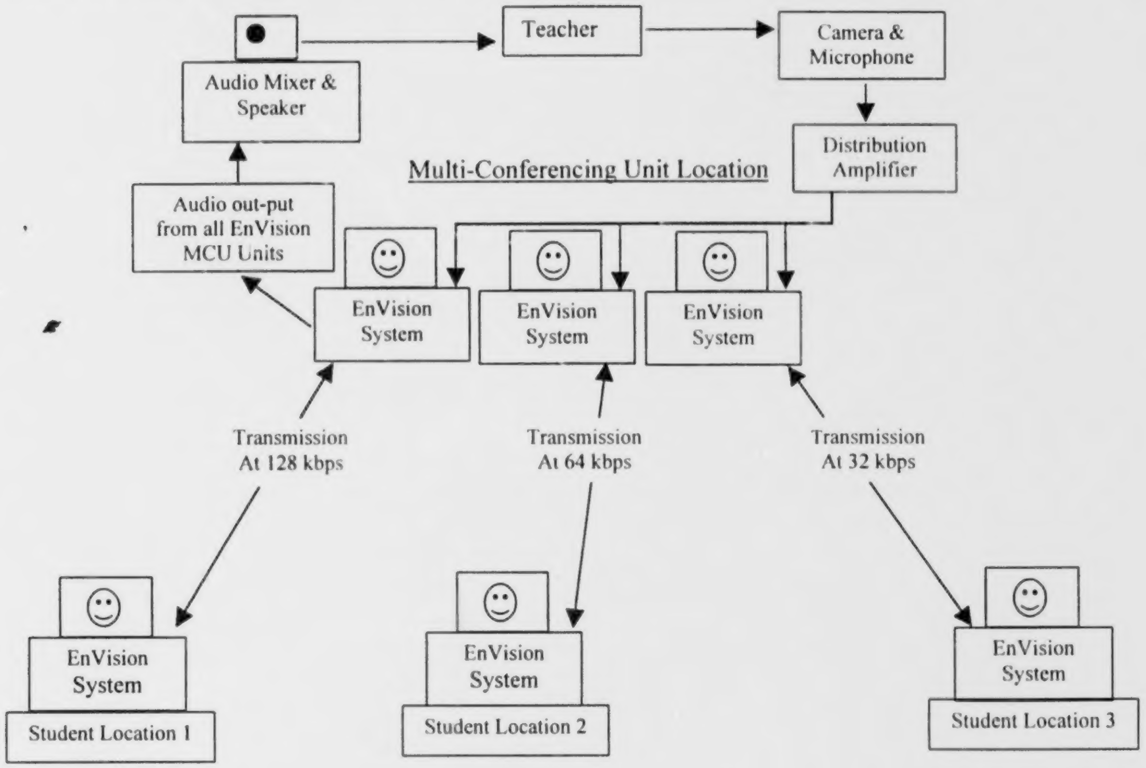

Figure 2. Graphic illustration of a multi-conferencing configuration.

A Windows PC with an EnVision system is required at each student location. Push-to-talk microphones or the use of the EnVision microphone mute button when students are not speaking is recommended to eliminate student site room noise. A large screen projector or television can be used at a student site if a large group of students attend. Any NTSC camera or multiple cameras can be used at a student location. Additional microphone options are also available from group tabletop models to wireless microphones. A wireless mic could be used with a student teacher moving around a classroom talking with students while being mentored from a remote location.

NetMeeting Compatibility

The EnVision system is also compatible with NetMeeting version 3.01. NetMeeting is standard software included in all Windows operating systems. NetMeeting version 3.01 can be used at student remote locations to receive the same video quality but not the enhanced voice quality delivered by EnVision. Remote sites with NetMeeting, a sound card, and microphone (but not a video capture card) can connect with a teacher using EnVision. The student will see and hear the teacher. The teacher will hear and be able to share documents with the student.

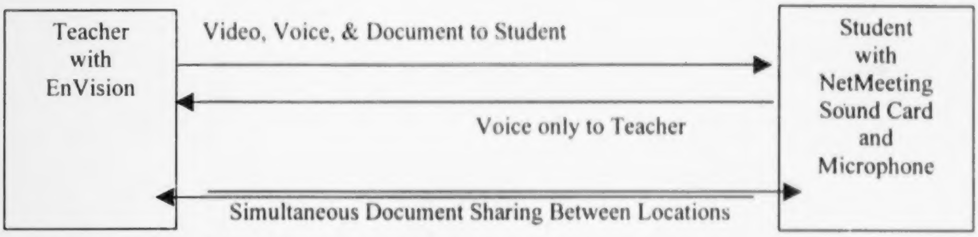

Figure 3. EnVision and NetMeeting connection.

Simultaneous Videoconferencing and Document Sharing

Once an EnVision call is connected, an adjustable window appears on the desktop with the picture and the voice of the person called. A white board can also be opened to view graphics and photos or create diagrams. Application sharing allows video conferencing participants to share any Windows PC program and to work together either within a program or on a whiteboard. The remote student location does not need to have the program that is being shared. For example a teacher could share a Microsoft PowerPoint document with a student during a call, even though the student PC does not have the Microsoft PowerPoint program installed. With EnVision the student is literally sharing the teacher's PC.

Sorenson Vision System Requirements

EnVision requires the use of a Windows PC. A Pentium PC or Celeron processor, 200 MHz or faster, is recommended.

Computer System Requirements for the EnVision Technology System

- Pentium 90 or faster processor or a Celeron processor
- Windows 95, 98 or NT
- Available PCI Slot
- 16 MB RAM (32 MB is recommended)
- 15 MB free hard disk space
- VGA/SVGA monitor with 16 bit color
- LAN / WAN or IP connection at a digital modem rate of 128 KBPS or faster.

EnVision Videoconferencing Kit Includes

- NTSC camera with video cable
- PCI card with audio/video processors
- H.323 EnVision Software CD
- Audio microphone and headset
- Jumper cables for use with existing sound card and speakers
- Collaboration software compatible with Microsoft NetMeeting
- Installation guide

The current price per unit is $735 with an Educational Discount. Information about purchasing Sorenson EnVision can be obtained by calling Dave Hansford at 801-461-9714 or on the web at hansford@s-vision.com. More information about EnVision and Sorenson Vision is available at www.s-vision.com

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GETTING A "HANDLE" ON DISTANCE EDUCATION

Purpose

Teacher educators at universities serving rural populations everywhere face a number of unique challenges that many individuals might find unbelievable in today's technologically advanced society. Administrators and teachers living and working in remote locations, such as those sites in Kentucky, are often reached through the use of interactive television or via the internet. Many interactive television sites are not equipped to meet the technological advances and therefore provide a poor quality of service to students. Unfortunately, many students do not have computers available to them at home or do not have access to them through public terminals. Furthermore, internet service providers are often not reaching out to rural areas and are not providing assistance to customers. Instructions are often given to a customer when he or she signs an agreement for services without the offer of assistance with a complicated registration process. Porter (1997) states that both educators and trainers must receive the necessary educational support, including specific training, for any distance learning program to be successful. These challenges provide a unique opportunity to dedicated teacher educators to design courses that overcome the barriers of distance, provide technical support services to students, and ensure delivery of quality education to administrators, general educators, and special educators serving the needs of students everywhere.

Non-traditional students spend as much time traveling to and from classes as they do actually receiving instruction in the traditional classroom. Students enrolled in a graduate introductory course to exceptional child education at Western Kentucky University expressed a desire for optional delivery of instruction to meet their unique needs. Many of these students must travel long distances to and from campus, making scheduling of traditional course options impossible. Others are unable to attend class due to family obligations or due to financial constraints. Asynchronous delivery of instruction provides these students the flexibility to complete their education and still reserve quality time for their families and for their children. Although often rejected by more traditional instructors, these alternative methods of instructional delivery create a unique learning environment in which administrators, general educators, and special educators can develop support systems for the purpose of solving problems and for the purpose of exchanging of new ideas.

Focus

A graduate course, introduction to exceptional child education, is taught to administrators, teachers, and potential teachers in remote locations across the state of Kentucky. The course is provided to meet program requirements, to obtain emergency teaching certification, or to receive licensure to teach across the state or in neighboring states. Focus of instruction is placed on meeting the training needs of the teachers at each site. Valuable information is often shared by administrators and teachers during class about best practices in neighboring school systems.

The pilot study focused on providing non-traditional students in four sites across the state of Kentucky with access to alternative instructional delivery options for this graduate course. Students attending interactive television sites were given the option to experiment with the same course delivered via the internet. Ten students were initially enrolled in the online version, while 41 students enrolled in the interactive television version. One student from the online version and two from the interactive television version dropped the course. All four sites participated in the pilot study by enrolling in the course via the internet or via interactive television, with 13 students migrating from interactive television to the online version of the course. A total of 22 students eventually participated in the course via the internet. The same instructor taught both the online version and the interactive television version of the course.

Method

Data were collected during the piloting of the graduate course at four sites in the state of Kentucky. Student enrollment in the online version of the course was limited to approximately 20 students as suggested in the literature (Young, 2000) to keep the course more interpersonal. The instructor taught the course for one semester before beginning the pilot study utilizing a listserv to send lessons, e-mail to communicate, and an electronic bulletin board for posting responses to case studies. During the pilot study data were collected on student reactions, course grades, class participation, problems encountered, and individual and group interaction. An exit survey was designed for completion by all students enrolled in the online version of the course to assist the instructor with instructional evaluation and with implementation of change procedures.

Objectives

After teaching the course for one semester via alternative methods of instructional delivery, the instructor compiled a set of objectives to address during development of the course for asynchronous delivery of instruction. Then course lessons, study guides, quizzes, surveys, case studies, and all other materials needed were designed to be made available to students via the internet. Course objectives included:

1. Developing effective, alternative methods of communication with remote sites.
2. Personalizing methods of instruction.
3. Monitoring and recording student participation.
4. Utilizing case studies and discussion boards to encourage student interaction.
5. Inviting guest speakers.
6. Encouraging student participation.

Results

An anonymous, exit survey was developed to provide the instructor with information needed for evaluation of course presentation and for implementation of change procedures. The exit survey was completed by 20 of the 22 students taking the course online. Survey questions were designed to be open-ended, allowing students the opportunity to explain their answers. The exit survey included the following questions:

1. Did you miss the social interaction provided with a face-to-face instructional method of delivery?
2. Does this method of instructional delivery allow you to utilize time more efficiently?
3. Did this course motivate you to improve your technological skills?
4. Did the study guides help you identify significant information in each chapter?
5. Did you receive enough instructor feedback?
6. Would you take another online course?

Results indicated that although three students missed the face-to-face interaction enjoyed in traditional classrooms, the flexibility of working at your own pace outweighed this disadvantage. Two students working in the same school district talked and worked together on class activities. One student stated that interaction was not that much different online than during interactive television courses. Students reported that travel time saved while taking the course online was spent on activities with family members, especially children. Being able to work on class assignments during the evenings or late at night when children were asleep was mentioned as a big advantage of online course presentation. The study guides prepared by the instructor were reported to have been helpful with identifying important facts and focusing on important topics, and highlighting main points. One student said that she completed the study guide while reading each chapter. The instructor was considered to be very helpful, patient, and understanding. One student reported that instructor feedback was more available than with face to face classes. Feedback was reported to have been received via e-mail, fax, personal phone calls, and online. All students stated that they would take another course online, if it was part of their program of study. One student remarked that he or she would probably not take a course just because it was being presented online. One student had already enrolled in another online course for the spring semester. All students reported that they had improved their technological skills. Two students stated that they had never participated in a virtual chat room before taking this course. Another student said that she experienced "a whole new level of communication".

Answers to questions posed to the students in the exit survey follow. The results appear in Table 1 below.

Table 1: Exit Survey Results

Questions	Yes	No	Other
1. Did you miss the social interaction provided with a face to face instructional method of delivery?	Responses = 0 Percent = 0%	Responses = 17 Percent = 85%	Responses 1 = to an extent 2 = a little Percent = 15%
2. Does this method of instructional delivery allow you to utilize time more efficiently?	Responses = 20 Percent = 100%	Responses = 0 Percent = 0%	Responses = 0 Percent = 0%
3. Did this course motivate you to improve your technological skills?	Responses = 20 Percent = 100%	Responses = 0 Percent = 0%	Responses = 0 Percent = 0%
4. Did the study guides help you identify significant information in each chapter?	Responses = 19 Percent = 95%	Responses = 0 Percent = 0%	Responses 1 = think so Percent = 5%
5. Did you receive enough instructor feedback?	Responses = 20 Percent = 100%	Responses = 0 Percent = 0%	Responses = 0 Percent = 0%
6. Would you take another online course?	Response = 20 Percent = 100%	Response = 0 Percent = 0%	Response = 0 Percent = 0%

Note. Although 22 students participated in the online course, only 20 students completed the exit survey.

Discussion

Since students in the pilot study expressed a desire to take more courses online, development of other courses using the same alternative delivery methods was implicated. Conclusions were drawn from the study in regard to the development of further courses for presentation via the internet. Following is a summary of those conclusions.

Lesson

Preparation. Lesson development can be accomplished by preparing the lessons in advance or developing the lessons during course presentation. Lessons for this study were developed during the pilot study. Lessons were specifically designed for Web-based presentation. It was determined from previous experiences that lessons should be kept short and concise. Lesson one was reserved for student registration and enrollment procedures. All required assignments listed on the syllabus were included in the lessons, including all quizzes and surveys. From study results it was determined that preparing lessons in advance allows the instructor the time to interact with students more frequently. Being more responsive to students questions and comments (Young, 2000), kept the discussion current and the instructor more involved.

Presentation. Lessons can be presented at the beginning of the course or in lesson units, such as a unit consisting of three lessons. Lesson units worked best with this introductory course. Releasing two or three lessons at one time helped students pace themselves, yet still presented the option of completing more than one lesson at a time. Nontraditional students benefited most, reporting that they could complete lessons ahead of schedule if family activities occasionally presented demands on their time.

Completion. Depending on the particular course being taught, lessons can be completed by the students in a specific order or in any chosen order. Since each textbook chapter addresses material that is basically unrelated, students in the study could complete lessons in order of presentation or out of order. Only one required deadline was enforced, completion of all required assignments by the end of the semester.

Course Presentation

The course was developed for presentation using CourseInfo, a Web-based instructional program. Porter (1997) suggests "chunking" material for use on the Web. Therefore, material was divided into general course information, course documents, lessons, study guides, quizzes, and surveys. 16 Lessons, with accompanying study guides for each chapter, were utilized to help students identify significant information from the textbook. Of the 20 students who took the exit survey, 95% reported that the study guides were very helpful.

Instructor/Student Communication

Weekly communication can be accomplished via e-mail or through the use of announcements posted to the course site. During the pilot it was determined that daily communication was necessary to provide students with extra encouragement and support during the two week enrollment process. Announcements at the course site were utilized to communicate with the class as a whole or to communicate with individual groups after the first two weeks. It was still necessary to plan two specific times per week to respond to individual e-mail messages.

Guest Presentations

Guests can be invited to participate with students in discussions by utilizing a discussion board or by utilizing virtual chat rooms. A guest speaker was invited by the instructor during this study to share her expertise in the area of collaboration with the students. All students were required to post a question to the speaker on the discussion board and then respond to her answer. All students who participated in the activity presented thoughtful questions to the guest speaker. The guest speaker reported that she enjoyed the experience.

Individual and Group Participation

Students can interact with the instructor on an individual basis through the use of e-mail messages, electronic transmission of documents, posting to a discussion board, sending a fax, making a telephone call, or planning a face-to-face meeting. Students in this study frequently e-mailed the instructor with specific questions. Responses to questions posed in the lessons were usually posted to the discussion board.

Group interaction can be accomplished by assigning students to the group of their choice for the purpose of group chats, group document transfers, and group e-mails. Some students reported that members of their group were an invaluable source of information during the course. A record of group interaction was provided to the instructor through the course statistics.

Student Evaluation

Assessments can be presented at specific dates or times or after a given number of lessons to allow asynchronous completion. It was determined during this study that presenting the assessments after a given number of lessons provided students with the opportunity to construct their own learning schedule. This presentation provided options for diverse learners by individualizing instruction for all students. Students in the study developed their own time log and worked more independently than in face to face classes. Students reported that they read the textbook material more thoroughly and spent more time on assignments. The instructor noted that written assignments were superior in quality to those completed for face-to-face classes. 20 of the 22 students, who migrated to the online version of the course, successfully completed all of the assignments included in the16 online lessons. All of the students taking the course via interactive television or online completed the necessary requirements to receive credit for the course. The electronic transmission of assignments virtually eliminated the transfer of actual paper, creating a paperless classroom (Foreman, 2000).

Practical Applications

Information obtained from the pilot study could be utilized to teach administrators, general educators, and special educators at remote sites via interactive television or via the internet. Students in both the interactive television and the online version of the course shared best practices from across the state of Kentucky during the weekly class discussions. The supportive network established during class could be continued through the use of e-mail messages and group chats with future classes. Teachers who often do not have the time to collaborate could continue this valuable exchange by participating in future class discussions to exchange new ideas and to share solutions to problems.

Practical applications from the study include:

1. Developing collaborative preservice and inservice training sessions.
2. Networking with remote sites to share best practices.
3. Making education convenient to nontraditional students.
4. Developing technological skills of all educators.
5. Communicating with educators across a state.
6. Providing a support network for administrators and educators across a state or neighboring state.

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PROFESSIONALS READY FOR EDUCATIONAL PARTNERSHIPS (PREP): THE DEVELOPMENT, IMPLEMENTATION, AND EVALUATION OF A MULTIMEDIA DISTANCE EDUCATION COURSE ON COLLABORATION

Professionals Ready for Educational Partnerships (PREP) is a multimedia tele-course that utilizes a textbook, stand-alone videos with breakout activities, interactive viewing guides and support materials, and CD tutorials. PREP was developed at the University of Utah to help educators understand and practice various forms of collaboration. Using an ecological perspective, participants learn how to forge partnerships in the classroom, school, home, and community. There are two primary reasons why PREP is needed.

First, schools continue to include students who come from various backgrounds with an array of complex needs. This includes students who are culturally, ethnically, and linguistically diverse. Additionally, more and more schools are moving toward the inclusion of students with disabilities. Teachers, administrators, and specialists cannot be expected to meet the needs of this diverse group of students on their own. Consequently, educators have recognized the need for establishing educational partnerships and collaboration.

Second, despite recognizing the need for collaboration, most educators do not know how to actually practice it. Professional preparation programs often do not include coursework on collaboration. Some disciplines may include certain components of collaboration, such as interpersonal communication skills. However, most educators have received little to no instruction on how to form and maintain educational partnerships.

Audiences

PREP has been designed for use with upper-level undergraduate pre-professionals in education, lower-level graduate students in education, and practicing professionals in staff development programs at the building or district level. PREP can be used as a stand-alone course in distance education programs. We encourage staff development coordinators to consider using a "trainer of trainer" model by preparing district inservice coordinators to deliver the PREP program to a variety of school settings.

PREP could be used to prepare any and all educators, regardless of their discipline. PREP is more effective when educators from various disciplines participate and share their various expertise and perspectives.

Content and textbook. The content of the multimedia program was based on a textbook written by Welch and Sheridan (1995) and commercially published prior to producing the videos and CDs. The text serves as the foundation for the multimedia program's information. Participants are required to read specific chapters from the text prior to viewing the video presentations just as students would have reading assignments prior to a traditional lecture-based course. Specific topical areas of the video modules correspond to chapters from the text. The topical areas include: (a) what is collaboration? (b) students at risk, (c) problem solving, (d) communication skills and conflict management, (e) the traditional and changing school and professional roles, (f) traditional and alternative assessment procedures, (g) adapting instruction, (h) school-based partnerships, (i) school-home partnerships, and (j) community-based partnerships.

Videos. The instructional program consists of ten video presentations that reinforce information from the textbook. The video presentations were professionally produced by Media Solutions of KUED, a PBS affiliate station at the University of Utah. The videos employ a documentary format rather than a video taped lecture of an instructor speaking from a podium. A professional narrator provided an aural presentation of information. Documentary footage or graphical text supported the narrative. Interviews with nationally recognized experts are included in each video presentation to present a rationale and theoretical principles associated with a given topic. The interviews are then complimented with documentary footage of practitioners applying skills or techniques related to the theoretical concepts described by the experts. The video presentations serve as a virtual field trip by "bringing" other educators and settings to the viewing site. Each video presentation begins with a "pre-flection" activity and discussion to activate participants' prior knowledge and experience. The pre-flection discussion targets topical areas that are revisited following the video presentation during a post-viewing discussion to ascertain if participants' understanding was improved. Likewise, participants review instructional objectives enumerated in their support materials. The video presentations have what can be thought of as "bookend" discussions to initiate and review key concepts.

The actual running time of each video is less than one hour, with an average duration of 52 minutes. However, the videos are not viewed in a continuous manner. Instead, each presentation is interspersed with guided and directed breakout activities approximately every 15 minutes to reflect some of the components of effective video-mediated instruction suggested by Reeves (1989).

Breakout activities. Each video presentation includes a visual cue to the instructor or facilitator to pause the video and lead participants through a variety of discussions, exercises, or role playing scenarios. This represents one of the salient features of effective video-mediated instruction described by Reeves (1989). Breakout activities are presented in the accompanying support materials that are described below. The activities range from 5 to 15 minutes in duration. Depending on the nature of the task, breakout activities can be conducted with an entire group, smaller groups, student dyads, or individuals. This approach promotes active, rather than passive, viewing and interaction on the part of the participant. Breakout activities have been used extensively in a distance education program for preparing prospective special education teachers in rural areas (Sebastian, Egan, Welch, & Page, 1996) and during a video-based staff development program (Welch & Sheridan, 1997).

Support Materials. Participants are provided with hard copy notes for each video presentation. These notes represent an acquisition outline in which key concepts, definitions, and procedures are included on the printed page to minimize the necessity of copying information as in the case of traditional note taking. The presentation format utilized various approaches described by Cyrs and Smith (1990). The printed information is presented on the left side of the page allowing the remaining space to be used for supplementary note taking. The support materials facilitate active interaction and engagement on the part of the viewer. The degree to which participants write notes varies from individual to individual. The instructor or facilitator has a master hard copy of the support materials plus an electronic version on the facilitator's CD that can be printed and then copied and obtained by participants and then placed into a three-ring binder. As in the case of college and university courses, students bought a copy of their support materials at the bookstore at the same time they purchased their textbook.

CDs. Ten cross-platform CDs are used for each module. As the project was developed, the CDs were originally conceptualized as "cyber quizzes" to replace traditional paper/pencil quizzes. It was felt during front-end evaluation that this medium could be exploited in a way that went beyond the limitations of the traditional pencil/paper medium of quizzes. Participants were assigned to a designated computer lab to check out the CD for a specific module. The CDs consist of ten multiple-choice probes that incorporate text, full motion video, and audio. Participants read a question and then select a response. An initial correct response is awarded 10 points with additional text and sometimes, video or audio information explaining why the response was correct. If, however, the initial response is incorrect, a score of zero is awarded with an explanation why the response was incorrect. The participant is also encouraged to try again. A score of five points is awarded when the correct response is finally identified. The CD program automatically tabulates the participants' scores as well as the number of "hits" or attempts to respond to a probe question and the amount of time spent on the item. This information is downloaded and reported in a table format as an electronic grade sheet by the facilitator.

Formative Evaluation of Consumer Satisfaction

Participants in each field-test site were asked to complete a 45-item survey to assess their overall satisfaction with the three major components of the multimedia product: (a) video presentations, (b) breakout activities, and (c) CDs. These surveys were completed approximately ten weeks into the 15-week semester. There were three dimensions for each of the three components. One dimension asked participants to rate the aesthetic production quality. The second dimension asked participants to rate the clarity and achievement of instructional goals. The third dimension queried learners' assessment of the instructional organization. Participants were asked to rate the content of the course as part of the fourth dimension. Three questions were posed for each of the three dimensions. A fourth category assessing participants' overall judgment consisted of 3 items, one for each of the multimedia components. The first question asked participants to rate the aesthetic value and production quality. Participants were asked in the second question to rate to what extent each of the components achieved their instructional goals. The third question assessed participants' perception of the overall instructional quality. Finally, participants were asked to rate the quality of content in each of the three multimedia components. The survey instrument employed a 4-point Likert-type response format (4 = very good, 3 = good, 2= poor, 1= very poor). This survey was inadvertently omitted at Sites 1 and 2 and only administered at Sites 3, 4, and 5.

Quantitative Evaluation of Learners' Experience

Quantitative methodology was used to assess learners' experience with this multimedia product was to measure student outcomes. The dependent variable used the t pretest/posttest measures on participants' cognitive knowledge related to collaboration. The cognitive assessment consisting of 33 multiple-choice questions administered via paper and pencil. These questions directly reflected the participants' understanding and knowledge about vocabulary terms and concepts pertaining to the course content in which participants were enrolled. Each question was directly tied to learning objectives from the textbook used in the course. The instrument was developed by the one of the authors and a graduate research assistant. The instrument was sent out to a panel of six content experts (one being the other co-author of the textbook) to assess content validity. Revisions based on the experts' comments were made. A test/retest was conducted spring quarter 1998.

Thirty-five undergraduates enrolled in two sections of an introductory course for special education participated in the test/retest. The same form of the test was administered and then two weeks later re-administered by the graduate/research assistant. A t-test for paired samples was conducted and no significant difference was found between the two measures t(1,34)=-.95, p=.347, and a test/retest correlation measure of r=.775 suggesting a minimum degree of stability/reliability in test scores.

Qualitative Evaluation

Qualitative methodology was incorporated as a form of social validation to gather consumer satisfaction information as a means of assessing multimedia integration and learners' experience. Schwartz and Baer (1991) suggested social validity is two-part process: (a) collect an accurate and representative sample of opinions and, (b) use the information to sustain or change a program to support its feasibility.

The focus group interview was semi-structured and administered by a contracted evaluation specialist or the graduate research assistant of this project. The interview consisted of open-ended questions. Each focus group interview was taped recorded and conducted approximately during the tenth week of the 15 week semester in three sites and immediately following the last class session in two sites. To ensure integrity, the same focus group questions were read aloud with pauses between questions for the participants to answer. The focus group portion of this study addressed three questions: (a) what are your impressions of the video presentation provided in this course? And why do you feel this way? (b) What do you think of the breakout activities provided in this course? And why do you think this way?, and (c) What are your impressions of the CD provided in this course? And why do you feel this way? These questions reflected the basic content of the formative evaluation survey described above.

Data Analysis

Quantitative Analysis

Statistical analysis was performed on the pretest and posttest measure of cognitive knowledge. A parametric statistical analysis is appropriate when the cognitive knowledge measure collects interval type data with a sample size greater than fifteen. Therefore, an analysis of variance (ANOVA) was employed with two groups of more than fifteen participants. The ANOVA was performed to compare differences between the pre and post measures of the cognitive survey. A paired t-test was implemented with three groups consisting of less than fifteen participants. This analysis was conducted to assess differences between pre and post measures on the cognitive measure.

Qualitative Analysis

A review team consisting of graduate students with experience in qualitative methodology independently analyzed the focus group transcripts. To enhance the validity of this analysis, the technique of triangulation (Patton, 1990) was used. Individually, each member of the graduate research group analyzed the transcripts for emerging thematic units and then they discussed and compared their finding as a group.

Results

Formative Evaluation of Consumer Satisfaction

A total of 50 surveys from 3 test sites were usable to tabulate descriptive means (see Table 2). The average mean response of the four questions in the video component was 3.25 (SD = .54) on a four point rating scale. 94% of the responses were either "good" or "very good". The average mean rating for the breakout activities was 3.24 (SD = .64) with 92% of the ratings being "good" or "very good". The average mean rating for the CDs was 3.19 (SD = .76). Of those responding, 86% of the ratings was either "good" or "very good." The mean rating of the four dimensions within the videos, breakout activities, and CDs was also calculated. The overall mean rating of the aesthetic production quality of all three multimedia components was 3.26 (SD = .60). Participants' overall mean rating of clarity and achievement of instructional goals was 3.22 (SD = .59). The mean rating of instructional organization of all three multimedia components was 3.21 (SD = .60). The overall content had a mean rating of 3.20 (SD = .58). These combined ratings suggest that respondents generally found the overall quality and effectiveness of the videos, breakout activities, and CDs as "good."

Quantitative Results

The ANOVA and paired t-test results revealed significant growth on the post measures scores for all five sites (see Table 3). The on-campus post-bachelors group without the CD component at a public university (Site 1 - n = 28) had a post mean score of 23.64 which was significantly higher than the pre mean score of 16.04 [F(1,55) = 27.94, p < .001]. The on-campus post-bachelors group using the CDs at the public university (Site 2 - n = 28) had a post mean score of 23.54 which was significantly higher than the pre mean score of 15.04 [F (1,55) = 83.52, p < 0001]. However, an analysis of covariance (ANCOVA) indicated there was no statistical significant between the group using the CD and group that did not [F (1,55) = .195, p < 661].

The post mean score of 24.0 in the distance education group affiliated with the post-bachelors program at a public university (Site 3 - n=10) was significantly higher than the pre mean score of 17.5 [t(9) = -6.412, p < .001]. The undergraduate group at the public university (Site 4 - n = 14) had a post mean score of 17.64 which was significantly higher than the pre mean score of 14.43 [t(13) = -3.56, p < .005]. The post-bachelor group at the private college (Site 5 - n = 9) had a post mean score of 19.44 which is significantly higher than the pre mean score of 16.11 [t(8) = -2.774, p < . 05].

Qualitative Focus Group Evaluation

Video presentations. The participants had a range of impressions on the video presentation from mildly negative to very positive. The major focus of responses was related to the positive way the video presentation enhanced the participants' learning. Respondents felt the opportunity to see and hear how other teachers and school apply concepts was a positive aspect. One participant stated, "I like seeing and hearing from the teachers talking about things and not just listening to a professor speaking all the time." Another participant mentioned, "I like seeing and hearing the teachers and knowing what was going on out in the schools." Several considered seeing the application of specific concept or skill in authentic situations as being very effective. One respondent said, "I really enjoyed the videos that showed you how things are out there in the classroom." A few learners enjoyed the diversity in the ten modules. One participant mentioned how she learned more and remembered more from the videos. "I really enjoyed the videos and wished like the others had said there was more of the in schools and family life. I learned more from that and that's what I remembered."

Other comments were made about the opportunities to hear from experts and quest speakers. "I like it because it gave us the opportunity to hear from quest speakers and experts." One participant liked the videos and compared them to a visual field trip. A negative comment brought up by several participants was the inability to ask questions of the experts viewed in the video presentations. One respondent stated, "I appreciated hearing from the experts and teachers but I would of like them in person so I could of asked questions to them and have a dialogue." Only one participant she did not like the use of the narration with printed words. "The narration was a bit fast and hard to follow along while taking notes."

Breakout activities. All participants had a positive or neutral opinion regarding the breakout activities. The participants liked being able to discuss and apply what had just been viewed. "I really enjoyed the breakout activities and enjoyed being able to discuss with others what was being talked about." Similarly, several learners mentioned they liked being able to apply skills taught. "I like the breakout activities especially the ones that had to do with application of the skills." A couple participants agreed that the breakout activities were beneficial in that they didn't spend more than 15 minutes just watching the video. "I like how the breakouts were paced such that we didn't spend more than 15 minutes just watching the videos." One negative comment was made about being a part of the same group of all the breakout activities. "A limitation was being a part of the same group of people in the breakouts." However, it was clear from respondents that the facilitator plays a critical role in effectively conducting the activities and discussions. As such, facilitators must be adequately prepared for each activity and carefully monitor the activities.

CDs. A range from positive to negative impressions were expressed. Most of the negative comments were related to the multiple-choice format of probe questions. Participants felt that the multiple-choice format did not adequately measure or demonstrate what they had learned. "Having multiple choice questions for me is a bad way of showing what I learned." Another echoed that statement by saying, "I didn't like the quizzes but I would have disliked them more if they were regular paper pencil quizzes." Still another participant mentioned, "I like the CD-ROM but didn't like the multiple choice test questions." Many participants also reported their dislike of being assigned to a specific lab on campus to complete the CDs. Participants wanted to check out the CDs to use at the leisure and a more convenient location. This, however, was not possible due to limited supplies of CDs and possible limitations of hardware at home.

Aside from the negative comments about the multiple-choice questions, most participants reported the CDs as being beneficial. “I loved the CD quizzes because a lot of time I would get frustrated and ask why and with the CD I could go back and find out why.” Several participants enjoyed getting the immediate feedback. A couple of participants liked the option of listening to an aural presentation while reading the questions. One respondent said, “I really like being able to see and hear something and not just read it.” It was also suggested that the CDs be reconceptualized as a learning tool where students earn participation points rather than a grade for their responses. This would allow greater dialogue as learners take an active role in constructing their own learning experience.

Conclusion

The evaluation of PREP revealed that certain media are better suited for some instructional activities than other. While it was anticipated that students would enjoy the technological components of the CDs and videos, it was a surprise that students enjoyed the non-technological application of the breakout activities as much if not more than the CDs and videos. As such, it appears that the use of stand-alone videos with support materials and breakout activities is a viable approach of technology-enhanced distance education. Likewise, the CDs were perceived as effective instructional tools, especially when students were coupled into pairs. Consequently, the CDs are now being used with student dyads to earn participation and learning scores (PALS). Student outcomes suggest that significant cognitive growth occurred in all settings and with all types of students. Additional information about PREP can be found on the project website at www. prep.utah.edu. Training and dissemination information can be obtained by contacting the presenter.

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THINKING OUT OF THE BOX: ANYTIME, ANYWHERE CONSULTATION THROUGH TECHNOLOGY

All too often families of children with disabilities and special education staff are bound by the schedules of university consultants who serve large geographic regions. It is time for universities to "think out of the box" and begin to offer consultation opportunities through an alternative delivery system that is faster, cheaper and more timely; thereby, democratizing access to best practices and current research. With the advent of more affordable computers and video netmeeting (or computer based video conferencing) technology, families and special education staff living in isolated rural communities can have timely access to real-time communication opportunities, under certain circumstances. The necessary technology, technical support, funding, and training need to be available before family members, practicing teachers, related service staff, and university faculty can have increased opportunities for communicating. With appropriate technology, training and support communication with a wider network of individuals across various disciplines including other experienced, knowledgeable family members becomes possible at the time problems occur.

The purpose of this presentation is to offer an innovative, alternative model for face-to-face communication that is delivered through the use of video netmeeting with university special education faculty, families and special education professionals who reside and work in rural areas. This presentation will provide an overview of the "Anytime, Anywhere" consultation model, a description of the research questions, preliminary data results, recommendations and conclusions.

A limited number of studies have been conducted on the use, benefits and challenges of computer based telecommunication with educators in rural settings. Nelson, Simonsen, & Michelson (1996) found that the use of netmeeting technology has the potential to break down the physical distance of geographic isolation and enhance accessibility to information at an affordable cost. Families and educators who develop skills in netmeeting technology have the opportunity to increase their parenting and professional skills along with increasing their knowledge base (Teles & Duxbury, 1991). Telecommunicating activities may also facilitate school districts efforts to increase communication with institutions of higher learning and share information locally, nationally, and internationally (Kendall, 1992).

The scope of the model presented reaches out, first, to individuals who teach in districts within the Far Western region of Kentucky. Their students are either young students with disabilities or at-risk for developing a disability that are enrolled in early childhood programs or school-age students in public school who have been diagnosed with low-incidence disabilities and significant support needs. The geographical region served by the university is located in a rural area of Kentucky, which has only one city with a population of 30,000, and is more than two hours away from any major metropolitan area. Widespread poverty and a lack of ready access to services or technology resources are traditional barriers to many residents within this region.

Part-time students enrolled in graduate studies in special education at the university who teach in this region are isolated from their network of classmates who share the same areas of study. Furthermore, they experience limited access to faculty expertise, except for occasional distance learning courses at satellite campus sites or summer courses on campus. Even then, consultation opportunities are limited usually by the physical distance it takes to travel to each other's site and, ultimately, by the inability to schedule blocks of time among consultation team members and university faculty.

Anytime, Anywhere Consultation Through Technology Model

This section will address characteristics of the model and the implementation of the project. There are two major characteristics of this consultation model. It is transdisciplinary in nature and it is provided through the use of video netmeeting technology.

Transdiscipinary Teaming

The teaming model of delivering consultation services is transdiciplinary in nature. That is, university faculty and staff along with public school educators, Head Start teachers, family members, and related service personnel (e.g., speech and language pathologists) share or transfer "information and skills across traditional disciplinary boundaries" (Orelove & Sobsey, 1991, p. 11). This approach to teaming is deemed necessary for working with children and youth with complex, multiple needs and their families.

In this project, the faculty's expertise crosses the fields of early childhood special education, moderate to severe disabilities, and speech and language pathology. Also, the project represents a unique partnership between Head Start programs, rural school districts and special education faculty at a regional university.

Another aspect of the transdisciplinary nature of this project is reflected in how the delivery of in-service training was arranged. University faculty and staff associated with the model delivered the technology training as a team. Participants in the project were offered in-service training on how to use the video netmeeting technology. Team participation (i.e., admininistrator, special education teacher, speech and language pathologist, family member, and technology specialist) in the in-service training was highly encouraged. In fact, the implementation of this project is firmly rooted in the project's requirement that the opportunity for in-service training and the placement of the video netmeeting equipment at their site is extended to participants only if they attend as teams.

Video Netmeeting

Video Netmeeting (or computer based video conferencing) is defined as the use of an Internet desktop camera, microphone, and accompanying software that allows the capturing and displaying of real-time visual images and audio data from another conference participant on the participant's personal computer. Low cost video netmeeting equipment (i.e., AverMedia InterCam) was purchased with funding made available to project faculty through a "mini-grant" awarded from the Dean's Office in the College of Education at Murray State University, Murray, Kentucky.

Project Implementation

The project began with planning meetings to developed potential consultation sites for netmeeting capabilities and to finalize our framework for service delivery of the consultation opportunities. Project staff consists of two assistant professors in special education and one speech and language pathologist on staff in the Department of Special Education at Murray State University. Project staff submitted and received approval for the project's proposal from the university's Institutional Review Board for the protection of human subjects. University personnel from the office of Academic, Computing, and Technology served as consultants to the project staff. The following four steps were taken to initiate the project.

First, personnel at potential field sites were contacted by telephone to survey their interest in the project. Second, each site was sent a flyer descriptive of the project. Third, follow-up telephone contacts were conducted to survey participants' willingness to participate and to gain information about their current computer system's features in relationship to the requirements needed for the Internet video conferencing equipment. It was at that time that participants were sent samples of a "Participant Consent Form" and "Participant/University Staff Responsibilities Form". Fourth, an in-service on the technology was conducted for all participants. It was felt that demonstration of the installation of the equipment along with practice sessions in using the technology were necessary components of in-service training. Consequently, a four-hour in-service training workshop was held for the five participating school district teams (i.e., total of 15 participants).

During the training participants signed consent forms and received their video netmeeting equipment along with a netmeeting guide. The guide detailed the following: (a) installation of the video netmeeting hardware, (b) initial configuration of the video software, (c) making a connection to a conference participant and hanging up, and (d) using the "Chat" function. Personnel from the university's Academic, Computing and Technology Office prepared the guide and participated during the in-service training. They also offered technical support to the project's faculty when they were learning to use the technology.

Also, participants in the in-service training were given an explanation of the consultation "tracking log" and several blank copies for their own use. The purpose of the "tracking log" was to document consultation efforts as well as practice attempts in using the video conferencing technology. Documentation entries on the "tracking log" would cover who initiated the contact, who were involved and their role, reason for consultation, any proposed action, and outcomes of the consultation.

Research Questions and Preliminary Results

The following questions guide the research conducted in this project:

1. Which participants utilize the video netmeeting technology and how often?
2. What are the problems, concerns that prompt the participants' use of video netmeeting consultation?
3. What proposed actions are taken as a result of the video netmeeting consultation?
4. What outcomes, if any, result from the video netmeeting consultation?
5. What is the level of satisfaction or disatisfaction that participants feel in relationship to (a) the project and (b) the video netmeeting consultation opportunities?
6. What perceptions do participants have about their consultation and technology skills?

After the in-service training, video netmeeting contacts began with the participants. At this point in time, we can report that three (3) of the five consultation sites have established and conducted video netmeeting contacts within three weeks of installation of the equipment at their respective sites. Preliminary data indicates that initial contacts for all three sites were conducted primarily for practice in using the technology, demonstrating the technology for other site personnel, and for "troubleshooting" transmission problems. However, subsequent contacts from each of the sites are characterized as focusing on student issues such as language development, behavioral problems, and augumentative communication devices and computer software.

It is disappointing to report, even at this early stage of the project, that the remaining two sites have not responded to repeated attempts to encourage participation. Project staff are presently designing a survey to assess why staff is not using the technology as agreed upon. It is our intention to have an outside evaluator conduct the survey.

Recommendations and Conclusions

Because project staff are in the early stage of the first semester of data collection, we are not yet comfortable in making formal recommendations or stating final conclusions at this point in our research. However it appears that teachers and related service providers who enjoy the challenge of learning new skills and who have on-site technology consultants to assist them through the initial attempts to use new equipment are more likely to use consultation through netmeeting.

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Transition

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JOB CLUBS IN SPECIAL EDUCATION SETTINGS WORK

For those of you who may not be familiar with Maine, it is a state of 1,233,223 people as of the 1990 Census. Now according to the World Book Encyclopedia 45% of them live in an "urban" area: defined as having 2500 or more! As a point of reference, three of the largest cities in Maine have more than 25,000 (from the same Census). One city has more than 40,000. In my original proposal I did not clarify how rural the areas that I would like to write about. The job clubs I refer to take place in schools in towns of between 1,300 and 7,000. They are on average at least an hour from a "metropolitan area", the countryside is absolutely beautiful, unemployment rates tend to be above state average, and one of the greatest resources is their willingness to work through tough problems.

This paper is presented by a Bureau of Rehabilitation Casework Supervisor, working out of the Lewiston, Maine, CareerCenter. The Lewiston office, for the Bureau of Rehabilitation, covers four counties: Androscoggin, Franklin, Oxford, and Sagadahoc. Another hat the presenter wears is co-chair of a regional board overseeing four local Transition Councils which are local networks specifically working together on issues related to transitioning students from school to work. A third hat is convener of State of Maine Vocational Rehabilitation Counselors specializing in a transition caseload.

Three Vocational Rehabilitation Transition Counselors work in this area covering the four counties. They work as a team communicating well with each other and sharing resources. They had identified that they had been spending time and money on individual clients and even then there was not the success that the client needed. Individual job development was simply not resulting in effective placements, their budget was getting depleted, happiness was not a byproduct, and the clients (students) were not really understanding what was necessary to succeed in the workplace.

The counselors knew that students in special education programs need to answer questions that all workers must understand in order to make the best decisions about career choice. They appreciated that special education teachers and their staff knew these students the best, with the exception of the student's family. They were aware that the schools already had a full plate of curriculum. In addition there were community providers who were good at job development and job coaching who seemed to have much in common when working with students, although there had been no formalization of a standard approach. The transition councils had been providing the network to discuss areas that no one group seemed to have control over.

From working with adult clients, counselors recognized the value of job clubs to focus on preparing for the world of work. Specific skills such as resume writing, filling out job applications, writing simple business letters about an interview, interview skills, how to dress and act at a worksite were all important.

A job club is the forum that focuses on work-related decision making, although usually this forum is too fast paced for special education students. If the job club can be modified to include students, special education staff who know them, acceptable standards that allow for flexible delivery of curriculum, and community resources, then the outcomes can be jobs at graduation or at least much faster than without the preparation of a job club.

What is exciting is how this group worked together to arrive at job clubs in at least eight different schools throughout our four county area. The idea of preparing students for the world of work is, of course, in all school districts so it is more in how "turf issues" were minimized across systems that this paper is being written. The VR Counselors met with local administration for support and collaboration. We sent an invitation to as many community providers as we could identify in our area that provided service delivery that might be part of a job club. No provider was intentionally left out. The intent was to develop agreed upon measures that we all had identified as necessary to succeed at work. We all had experienced working with a client (student) who was not experiencing success on a job.

Several community providers met with us and there were several approaches talked about as historically occurring in our region. We did not even have a way of describing the service of a job club in a uniform way, so talking about potential costs, let alone uniform costs required some common language. We were talking about providing the student (client) with skills and resources to attain those skills that any successful worker needs. We agreed that the only way for this to be successful was to work hand in hand with the schools. If we could agree that every worker needs an awareness of the world of work, an awareness and presentation of his/her strengths and interests--such as through a personal portfolio, what an interview was, how to complete application forms, how to dress and act at an interview, how to write simple business letters--such as a thank you for a business visit, let alone to get or respond to an interview, we would be identifying skills that everyone that works with the student (client) could support. After a few meetings, with time in between to share our own information and digest it, we had a general consensus of what should be in a job club. We could then agree that to cover the curriculum would be several months, with certain activities per month. This led to an agreement that the cost no matter who the provider would be the same.

Please note that our intent was not to supplant anything occurring in any school system, but to offer skill building if a school wished to allow it in. In many of the areas we had already been working with individual students (clients) and therefore had a linkage with key school personnel that knew these students. Our approach allowed the discussion to incorporate a group of students who could be a support to each other, were at roughly similar stages in work readiness, who could access the same transportation and community resources, and a local provider who knew the area.

Since many schools use an eighty minute block or a partial block schedule, we had to discuss that the product would differ from a school that used only 50 minute periods. The key, however, was to focus on student needs. For a job club to be a part of a student's, or group of students' plan, it was essential to go through the PET process. The VR Counselor took the lead at this point to work with the school personnel to identify what students could benefit from a job club and could fit into a group both via curriculum and personality. The community provider for a particular area had already been designated and in a rare instance when more than one provider might have been interested, the decision was worked out so that the school and VR Counselor would be talking about a known entity. Every attempt to be equitable was encouraged, and the provider that may have expressed duplicative interest in one area was strongly encouraged in an adjacent one. By and large all parties collaborated well because there was already a working relationship familiar with the area. This is actually the second formal year and informally the third year because there was a pilot job club in a couple of schools which encouraged us to expand into a regional model.

Essentially there has been agreement in the set of skills leading to job readiness. We agreed that there could be a flexible approach how the skills could be taught that met the needs of the students, school, and community. In addition to varied school schedules, the unique availability of certain employers to job shadow or visit, the specific needs and abilities of a certain group, the availability of transportation—school bus or van, even the timing in the calendar year has resulted in some variations that still result in students (clients) gaining work awareness and skill building to become work ready. In addition, other community resources were brought in and sometimes unique enthusiasm or creativity lead to greater exploration of the world of work. There have been visits to local CareerCenters (these house rehabilitation, job service, and workforce development programs in one synergetic setting. Collaboration with local transition councils dovetail with local business visits and follow-up communication.

From a budget standpoint, this model is designed to get to more people faster and also promote group/peer mentoring. In addition at least one school system has identified that they can compile the resources needed to the job club "in house" . In that school the VR and community providers are consultants and available for follow-up once students become job ready. That school is perhaps at a point where we would like to encourage other schools to proceed. Still the value of a network coming together is that each area has its own characteristics that defy oversimplification. Bigger systems may have had that one additional education technician or available bus driver; another system may have had to deal with unexpected cutbacks, or turnover of a key staff person.

Many of the tasks of a job club could conceivably be accomplished with one VR counselor working with a school and its staff. There are many great successes due to just that kind of effort. The goal of our regional approach is to get to more and more schools in our region--and no one person can get to all the schools in their catchment area. We are really talking rural here. We have already begun, as well, to catalog some internal learning about what works and what may not work. For example, every school has its own way of doing things--its own culture. The process goes much smoother when there is an active staff member present throughout the curriculum. We have learned to plan ahead to arrange for that because the students advance farther faster when there is the continuity of a staff member present. We are getting a little better at evaluating if a particular setting is working as planned and that led to the instance of a school carrying out the objectives more on its own. There are some objectives that are better integrated into other subject areas: thank you letters following a business visit can take some special education students a long time and perhaps should be done in a resource room or in a language arts setting. Resumes do have a business protocol, but the fine tuning of writing one can be language arts, or a creative part of a portfolio which conceivably should be related to all subject areas. We have also learned that the outcome of a job club is a student (client) being ready to begin a VR plan which in Maine is the Individual Employment Plan. In other words, the student really understands his/her interests and abilities and has actual experience about the world of work, why people work, and how to make the right choice of a vocational goal.

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PROJECT START
TRANSITION FOR THE TWENTY-FIRST CENTURY
MAKING A DIFFERENCE, ONE STUDENT AT A TIME

School-to-work transition has been around for several years and though federal policy put strong emphasis on these types of programs for youth with disabilities, programs with work-based learning and on-the-job experience components have been difficult to implement because of scarcity of funding at the local level. This has been especially true in rural areas, which occur in every state and make up approximately forty percent of the student population. Linking transition to other restructuring efforts such as school-to-work, and implementing these instructional components as part of comprehensive programs, has positively affected systems change. (Benz, Yovanoff, & Doren, 1997; Furney et al., 1997).

Services for youth with disabilities often focus only on short-term progress, with assessments and decisions based on that one year's performance. IDEA mandating the transition plan as part of the IEP (for those sixteen and older) can help reverse this trend by requiring a student's IEP team to investigate, during the current year, the services a student may or will need in the future. However, the school-to-work concept views education and training as a developmental continuum, not as an unrelated series of one-year programs.

Researchers, disability advocates, and practitioners have concluded that the fragmented system of services within high schools and adult services are contributing to the failure of special education to prepare these youths for the future (Edgar, 1987; Johnson & Rusch, 1993; Wagner et al., 1991).

The School to Work Opportunities Act of 1994 (STWOA) and the reauthorization of the Individuals with Disabilities Education Act of 1997 (IDEA) gave us a much clearer picture of what transition should be and where it needs to go. Of the programs being used to implement these concepts, the most successful ones seem to have three things in common. They all address career awareness, preparation, and participation.

Booneville High School is a small rural school with an average student population of 435. The entire special education staff consists of two resource teachers who serve 45 to 50 special education students yearly. I am one of those two teachers. The other resource teacher and I decided to co-teach, sharing everything: students, files, paperwork, classroom teaching, job coaching, etc. in order to be better able to implement a transition program that addresses many of the major issues of a rural transition program. In the spring of 1997, as our district broke ground on a new high school facility, we broke ground on a new program for our students: Project S.T.A.R.T.

Project S.T.A.R.T. (Successful Transition And Readiness Training) reverses the roles of the IEP and transition plan. Instead of an IEP that addresses transition, almost as a secondary component, we made transition the core of the IEP, which, to us, makes more sense at the high school level. Once we have a clear view of a student's transition needs, we develop a four year graduation/transition plan. We look at their academic needs (math, reading, written expression, etc.) and address them with goals and objectives within the transition plan and/or classes in the general education schedule. Frequent monitoring and adjusting of each student's progress and yearly review of their overall plan help us prepare our students for graduation and post high school life.

Project S.T.A.R.T. is a school-to-work transition program designed specifically for the student who qualifies for special services in the public high school system. The focus of the program is to assist students in making a smooth transition from school to useful employment through the collective efforts of the student, parents, community, school and transition agencies and attempt to ensure that upon graduation, each student has mastered specific skills needed to maintain successful employment in a career that is suited to that student's interests and abilities. The curriculum is divided into four phases, each building upon the phase prior to it. Entry into successive phases is dependent upon successful completion/mastery of the previous phase, rather than grade placement. The objectives of Project S.T.A.R.T. are divided into three sections, outlining participation and impact of/on the student, school and community.

The student will complete the following: determine his/her own strengths, and weaknesses (Phase I); explore various careers to determine interest (Phases I & II); choose a career area that suits both interest and ability (Phases II & III); learn how to obtain a job competitively by filling out applications, acquiring good interviewing skills and writing resumes and reference sheets (Phase III); learn specific skills needed to work in the chosen field (Phase III); learn how to handle and budget money (Phases III & IV); develop an appreciation and respect for work (all phases-emphasized in Phases III & IV); learn the work ethics needed to keep a job by developing good work habits, good communication skills, cooperative behavior with others, and good grooming habits (all phases-emphasized in Phases III & IV); and actually make a smooth transition from school to the world of work and/or further training-education (Phase IV).

The school will provide the following: create a realistically based educational curriculum by teaching basic language, reading, and math skills through meaningful vocational activities; provide training with minimal cost, provide continuity throughout the high school transition program; attempt to ensure that upon graduation, each student has mastered specific skills needed to maintain successful employment in a career that is suited to the student's interests and abilities; address dropout rates and increase the holding power of the school; and bring community and school closer together.

The community will accomplish the following: acquire young adults that are contributing, productive citizens; acquire young adults that are taxpayers; and have the opportunity to participate in the vocational education of its own youth.

Research by Kohler & Rusch (1994) emphasized that curricula should be community-referenced and that program planning should be outcome-based. Project S.T.A.R.T. addresses these issues and more within it's four phases.

Phase I (Orientation) focuses on helping students identify individual strengths and weaknesses, learning to work cooperatively with others, exploring various career clusters to determine area(s) of interest, learning what skills, training and education are required of specific jobs within each cluster. Approximately two career clusters are studied each quarter with students incorporating reading, written expression and math skills into an in-depth research project on a specific career from one of the two clusters. Clusters covered in Phase I may include: Consumer/Homemaking; Hospitality/Recreation; Health; Personal Services; Business/Office; and Transportation. (Driver's education is taught during the transportation cluster.) Students also begin a portfolio where all documentation, contacts, personal information for forms, samples of work, etc. are kept.

Phase II (Preparation) allows students to monitor their strengths and weaknesses, explore more career clusters, and build on math, reading, and written expression skills by completing a research paper on a career they have chosen from the cluster(s) being studied. Approximately two career clusters are studied per quarter. Clusters covered in Phase II may include: Manufacturing/Marketing; Media/Communications; Fine Arts; Construction; Public Services; Environment/Agribusiness; and Natural Resources. Local field trips and guest speakers are included as often as possible to tie the jobs/careers, within each cluster, to the students' own community. Students continue to add to and update their portfolio.

Students in Phases I & II begin the on-going process of becoming aware of personal strengths and weaknesses through class discussions, individual counseling, a weekly journal entries, and completion of various assessment tools designed to determine interests and abilities of the student. As goals, interests and abilities change some assessments are reevaluated and readministered.

Also during these phases students become aware of individual vocational interests, strengths and needs by skimming through job opportunities, choosing an occupation of possible interest, answering a basic questionnaire about it, researching for additional interesting information from another source and completing a job project (which includes: writing a letter for more information and interviewing people who both work and employ workers in a related field), then write or present orally a summary of the job project and finally rate personal interest in the vocational area after research is completed.

Phase III (Transition) allows students to polish the skills they have been developing and develop specific skills to help them achieve their employment goal. continued monitoring and awareness of strengths and weaknesses aid students in the development of a resume' and in real/mock interviewing situations. Students narrow their career goals to one or two career choices and do an in depth research which includes: letters of inquiry, job applications, and interviews. Academic emphasis is on civic and consumer competence. Students continue to add to and update their portfolio.

Phase IV (Employment/Training) students have narrowed their career choices to one and actively seek placement in a job shadowing situation to acquire real on-the-job experience. Students use all previously acquired skills and education to accomplish this placement. Students continue to build on civic and consumer responsibilities with emphasis on handling & budgeting money and problem solving techniques in job-related issues/situations. Students add to and update portfolio during the year and at graduation time they transfer all papers, documents, etc. that may continue to be of benefit to a folder that they can take with them.

In Phases III & IV students develop general pre-employment skills needed to obtain a job by requesting interviews in person, by phone or mail; writing resume's; completing necessary forms such as job applications without assistance; role playing interviews based on comments made by actual employers; critiquing classmates' interviews and critiquing videotaped interviews of themselves.

Students develop skills to successfully work at specific jobs by creating a checklist of needed job skills and responsibilities, obtaining practical information on job related skills, completing job related tasks relevant to their target job and developing skills necessary for keeping a job which include: positive communications with employer, co-workers, and public; punctuality; honesty, and perseverance. During these phases students may also participate in community service learning (CSL), job shadowing and or actual job placement for paid employment. Discussion groups and individual counseling are used to help students maintain successful employment at desired occupation(s).

A classroom-based, student-run button-making enterprise involving Phases I, II, and III not only teaches the students (with first-hand experience) entrepreneurial and business operation skills, but also generates funds for Project S.T.A.R.T. Phase I is in charge of the actual manufacturing of the buttons, which now includes keychains, mirrors and magnets. Phase II students run the store, which includes making change, placing orders (for Phase I students to fill) and maintaining stock/inventory records. Phase III students are in charge of promotion and advertising.

Project S.T.A.R.T. was designed to meet the needs of students during their four years in high school. Students' graduation/transition plans are developed for the individual student and sometimes scheduling conflicts arise, classes have to be repeated, and tough choices have to be made. Each student's plan is different and uniquely tailored to meet the needs of that student. Not unlike life in general. Students are scheduled for two, back-to-back class periods which enables us to serve them better for academic reinforcement as well as transition/employment training activities. Students who successfully complete all four phases of Project S.T.A.R.T. by graduation are ready for the next big step in their lives.

Developing a four year graduation/transition plan for each student provides a continuity and a flow from year to year. Instead of four, unrelated one year programs, Project S.T.A.R.T. addresses the entire high school period with a single program divided into four phases. Students develop career awareness (Phases I & II), career preparation (Phases II & III), and career participation (Phase IV). Progress from phase to phase is not based on a calendar year or a school year but rather on the student's ability to master the material and activities presented which are defined by the student's own interests and needs.

Co-teaching, fund raising projects, and a classroom-based, student run business all help a small rural school to address the issue of scarcity of funding. It would be nice if some of the federal funds given to the states for transition would trickle down to the local level with some real help such as more teachers, aides and/or job coaches. One transition specialist per co-op doesn't help much in our classrooms when we are only one district of 30 or 40 being served by the same specialist.

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WHAT RURAL ENTREPRENEURS TELL US ABOUT ENTREPRENEURIAL TRAINING NEEDS

Introduction

The U. S. Department of Education (1998) provided the following information on the participation of working-age adults with disabilities in the workforce based on data provided by the U. S. Census Bureau in 1996.

Table 1

The Percentage of Persons with Disabilities Employed or in the Labor Force

Working-Age Americans	In Labor Force	Employed
All working-age persons	81.3 percent	76.7 percent
Working-age persons with disabilities	31.8 percent	27.8 percent

According to the U.S. Department of Education, working-age Americans are those individuals between the ages of 16 and 64 years. The government defines labor as either employment or training for employment. It is obvious that the percentage of unemployed among persons with disabilities is significant and severe. Further, statistics released by the same agency indicate a substantial earnings gap between nondisabled and disabled working adults as shown in the next table.

Table 2

The Average Salary of Persons with and Without Disability by Gender

Gender	No Disability	Nonsevere Disability	Severe Disability
Male	$2,190/mo	$1,857/mo	$1,262/mo
Female	$1,470/mo	$1,200/mo	$1,000/mo

This aggregate data masks the variation among persons with disabilities by age or region of residence. Yet other researchers suggest that adolescents with disabilities do not adapt well in the transition to work and independent living. Consider that:

- approximately 43% of students with disabilities drop out of school as compared to a dropout rate of 24.4% among students without disabilities (U.S. Department of Education, 1992);
- for adolescents who stay in school, whether in vocational, general or academic tracks, the education provided does not lead to marketable skill development (O'Neil, 1995);
- about 50% of high school seniors pursue any postsecondary training and only 25% will complete a bachelors degree in their lifetimes (Kazis, 1993);
- Fairweather and Shaver (1991) report that about 17% of students with mild disabilities pursue any form of postsecondary training; and
- any high school student who does not complete postsecondary training has significant difficulty in sustaining economic independence (Kazis).

The education of adolescents with disabilities living in rural regions of the United States is also hindered by problems inherent to the rural landscape. Since the aggregate data presented above masks variation in transition policy or student outcomes on a regional, state and local level, it is likely that the outcome measures used to determine transition success in rural areas are more likely to reveal more serious problems and potentially, a more dismal transition outlook for rural adolescents with disabilities. Rojewski (1990) reported that rural schools serve larger percentages of students with disabilities or who are at-risk of educational failure. Further, Helge (1992) cites geographic and distance barriers as a hindrance to any special education service delivery. She notes that the cost of service delivery in rural and remote schools sharply escalates due to higher transportation costs and longer time commitments for staff and students to cover distances related to service delivery. Carlson (1993) reports significant poverty in rural areas due to long-term economic decline and an exodus of jobs. These factors result in outdated and low quality programs, limited relevancy to local economic needs, and lack of authentic job experience (Rojewski, 1990).

Compounding these rural barriers are professional recruitment and retention issues faced by rural schools (Gold, Russell, and Williams, 1993). In general, administrators of rural schools report difficulty in recruiting and retaining licensed special education personnel and many of these individuals employed are unprepared to implement a transitional curriculum. Gold, Russell and Williams note that school administrators report the need to employ individuals with temporary teaching licenses whose training in special education is limited to nonexistent.

In summary, research suggests that adolescents with disabilities are less likely to establish independence without high quality transitional programs and that the problems inherent in rural schools makes the implementation of service delivery for transition extremely difficult.

Super (1990) defines transition as a lifelong process involving not only the individual, but also her or his family and the community. To prepare youth with disabilities for this "lifelong process," congress, in 1990 approved the Individuals with Disabilities Education Act, PL 101-476 in which it mandated that needed transition services be included in students' individualized educational plans. Congress defined transition as

> "A coordinated set of activities that promotes movement from school to post-school activities, including postsecondary education, vocational training, integrated employment, continuing and adult education, adult services, independent living, or community participation." Congress also called for a "coordinated set of activities based on the individual student's needs including instruction, community experiences, the development of employment and other post-school adult living objectives; and acquisition of daily living skills and functional vocational evaluation" (Department of Education, 1992, p. 44804).

For adolescents with disabilities, career education is a critical variable in the transition process. The Council for Exceptional Children (Brolin and D'Alonzo, 1979) defined career education as "all experiences by which one learns to live a meaningful, satisfying work life with opportunity to learn the academic, daily living, personal-social and occupational knowledge and skills to attain the highest levels of economic, personal and social fulfillment."

Related to the career education goal of "the highest levels of economic fulfillment," the U.S. Department of Education (Federal Register, 1998) predicts two major trends regarding the worklife for individuals with disabilities; participation in the self-employment and small business economic sectors or continued disproportionate representation of persons with disabilities in low-skilled, low-paying jobs. It may be that the former trend presents an important training opportunity for rural schools serving students with disabilities since small rural businesses and rural entrepreneurs could provide important and appropriate training sites for these rural students.

The Study

If special educators serving rural students with disabilities are to utilize the small business as one of a continuum of vocational training options, it is important to understand what rural entrepreneurs believe are critical academic and social skills as well as their perceptions of the role they might play in a vocational training program. Accordingly, in the fall of 1999, 50 small business owners whose businesses were located in rural northwest Ohio were interviewed in an attempt to answer these questions:

- What factors led you to begin this business?
- What resources were required to begin your business?
- What math skills are required in operating your business?
- What reading skills are required in operating your business?
- What social skills are important in serving your customers?
- Which of the following roles do you believe entrepreneurs like yourself should assume in training students to operate a small business?

The small business owners interviewed represented a wide range of businesses from the service and manufacturing sectors and were selected by undergraduate students enrolled in a special education teacher training program. These students were given a set of criteria to use when making the selection as well as a set of questions to be used during the interview with the selected entrepreneur. The criteria for selection included the location of the business, exclusion of employees for interview, exclusion of franchise businesses, and the percent of time spent by the entrepreneur in operating the business.

Specifically, business owners selected had to devote 100% of their worktime in operating the business and the business had to be located in one of twelve rural counties of northwest Ohio. Small business owners selected included backhoe operators, coffee and sandwich shop owners, window and mirror repair, small jewelry repair, children's used clothing, catering service, carpentry and woodworking, crafts and hobby shop, landscaping, carpet installation, asphalt treatment, story telling/entertaining, furniture movers, nail care, ice cream shop, tax service, apartment rental, dry cleaners, clothing alteration and repair, automotive repair, and others.

When these small business owners were asked about the factors that led them to starting their business, fully 58% indicated that the business grew out of a personal interest or hobby. Approximately 32% of these entrepreneurs stated that they had purchased an existing business in the belief that prior job experiences had prepared them for the work. Finally, about 10% of these individuals indicated that they had "inherited" the business from other family members.

Interestingly, 82% of the small business owners stated that they used private capital like personal savings or personal loans exclusively to start their business. The remainder obtained secured credit from banks based on business inventory. These individuals were not asked the very personal question about the total amount of money required to start their business in the belief that start-up costs would vary by region and change over time.

With the exception of landscapers and the backhoe operator, none of these entrepreneurs used any advanced math skills. Those operating the landscaping and backhoe businesses reported using some geometric algorithms such as calculating cubic yardage. All indicated using the following arithmetic skills: adding and subtracting dollars and cents; making change; calculating state tax, multiplying unit price by unit number; linear, liquid, weight and dry measurements, calculating salary, taxes and benefits, calculating perimeter, area and volume, maintaining a checking and savings account, and data entry for computerized business applications

The rural entrepreneurs interviewed in this project reported the necessity of reading highly technical documents yet, on a daily basis, reading requirements for most were very simple. The more technical documents such as contracts or tax laws ranged between 9th and college level based on the Fry Readability Scale (1968).

Readability of documents used on a daily basis such as menus or trade journals, ranged from fourth through sixth grade. In general, these small business owners reported reading schematics such as building plans or survey reports, letters including email, maps, trade journals, product information, reference material, and government regulations such as tax regulations or health codes.

The written expression skills reported by small business owners were surprisingly simple ranging from emails and written receipts or food orders to advertising documents. Collectively, written documents included standard contracts describing work or services to be provided, inventory and order forms, customer receipts, phone messages, advertisements, and form letters. Technical writing such as contracts were prepared for these individuals by attorneys or purchased in stationery supply shops.

Entrepreneurs participating in this project emphasized the importance of social skills. The skills most frequently mentioned by these individuals were greeting customers, answering the phone professionally, having a pleasant demeanor, handling customer complaints, responding to customer requests, and interacting appropriately with co-workers. Some of the participants in this project commented that employees were capable of and did use appropriate social skills, but that these were negated when the same employees were rude to the occasional customer, laughed at or ridiculed peers or avoided conversing with customers. It appeared that these individuals were saying that the presence of good social skills was an insufficient condition to characterize an employee as skillful in this domain. The absence of inappropriate social behaviors was also a requirement.

Finally, the small business owners were given several roles, which they might assume to contribute to the vocational training of adolescents with disabilities. They were asked which, if any, of these roles they would be willing to assume in training students to operate a small business. Approximately 96% indicated they would be willing to function as a mentor, 87% indicated they would permit short-term (1 day) shadow experiences, 84% stated they would support long-term shadow experiences (1 week), about 80% stated they would support unpaid internships, and 72% said they would accept student apprentices if there were no costs incurred for their businesses. The percentage of small business owners responding positively to these options is both optimistic and puzzling. In fact, these small business owners were not asked specifically to make a commitment to training students with disabilities. The caveat that must be stressed regarding the responses to this question is that a negative response is unnecessary while the positive response enhanced the image of the respondent . Yet, it is logical to conclude that there appears to be a significant number of small business owners willing to participate at some level in the vocational training of adolescents with disabilities.

Based on the responses of rural entrepreneurs participating in this project, it appears that employment training for small business operation is a viable service delivery option for rural students with mild disabilities for several reasons:

- The academic skills required for job performance fall within the range of academic achievement among students with mild disabilities.
- The training sites offered by rural small business owners reduce or mitigate the distance and geographic barriers inherent within rural communities.
- The start-up costs involved in small business operation are minimal as reported by participants in this project.
- Selection of the small business as a training site for internships or apprenticeships is more cost effective for the school system than in-school training since schools using this option can forego equipment and many personnel costs.
- The small business in a rural community adds economic and social value to the community.
- Perhaps most importantly, according to the federal government, small business ownership is a future trend that has high potential to enhance the economic, personal and social fulfillment of adolescents with mild disabilities as they transition from school to adult life.

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Other

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CAN'T SEE THE FOREST FOR THE TREES: RESOURCES FOR RURAL PROVIDERS

Clearinghouses in Collaboration

Clearinghouses in Collaboration are five specialized, national information and referral centers working collaboratively to help families, educators, students and others find information on childhood disability. We each work to collect and disseminate information about disability issues.

Clearinghouses collect specialized information and materials; answer questions; develop publications; offer databases of specialized information; search the Internet for resources; list specialized conferences; refer to a wide variety of specialist, organizations, agencies, and other information centers across the nation; provide training materials and handouts; and serve as a referral resource for all those concerned about the education and opportunities for infants, toddlers, children and youth with disabilities, their families and the many professionals who work for and with them. We are here to answer your information and technical assistance needs.

You can use a clearinghouse to learn more about a particular disability, get information about the Individuals with Disabilities Education Act (IDEA) and the accompanying regulations, learn about other resources in each state and territory, identify research projects and findings, get information about professions in special education, learn more about opportunities after high school for young adults with disabilities, and order a wide range of publications, many of which are available free of charge. Each of the clearinghouses maintains a comprehensive Web site and databases of information and organizations.

The clearinghouses serve the general public. While many people use the Internet and email to contact us, we are also available by phone and mail. Information specialists are on staff to help inquirers find resources that address their unique needs. Clearinghouses can also help projects disseminate information. Each has subcontracts with others to assist with provision of information, getting research into practice, and increasing awareness of the needs of children with disabilities and the many resources available to them.

This session described each of the clearinghouses and their areas of speciality. To learn more about each and look at products and services available, contact the individual clearinghouses and visit the Web sites.

ERIC, Clearinghouse on Disabilities and Gifted Education (ERIC-EC)
ERIC is a national information system on education with a large database of education materials. ERIC EC, one of the 16 ERIC clearinghouses, selects and abstracts the best of the professional literature on disabilities and gifted information for inclusion into the ERIC database.

ERIC Clearinghouse on Disabilities and Gifted Education
The Council for Exceptional Children
1920 Association Drive
Reston, VA 20191-1589
(800) 328-0272 V; (703) 264-9446 TTY
URL: http://ericec.org

NICHCY, National Information Center for Children and Youth with Disabilities
Established by Congress, NICHCY is an information and referral center that provides information on disabilities and disability-related issues as well as referrals to a wide network of specialists from agencies and organizations across the country. The focus is on education and children and youth, ages birth to about 21 years.

NICHCY
P.O. Box 1492
Washington, DC 20013-1492
(800) 695 0285 V/TTY
URL: http://www.nichcy.org

DB-LINK, the National Information Clearinghouse on Children Who Are Deaf-Blind
DB-LINK identifies, coordinates, and disseminates information related to children and youth who are deaf-blind. DB-LINK is a collaborative effort of the American Association of the Deaf-Blind, Helen Keller National Center, Perkins School for the blind, and Teaching Research.
DB-LINK
345 N. Monmouth Avenue
Monmouth, OR 97361
(800) 438-9376 V; (800) 854-7013 TTY
URL: http://www.tr.wou.edu/dblink

HEATH Resource Center, The National Clearinghouse on Postsecondary Education for Individuals with Disabilities
HEATH provides information on educational support services, policies, procedures, adaptations, transition, and opportunities at American campuses, vocational-training schools, adult education programs, independent living centers, and other training entities after high school for individuals with disabilities.
HEATH Resource Center
One Dupont Circle, Suite 800
Washington, DC 20036
(800) 544-3284 V/TTY
URL: http://www.heath-resource-center.org

National Clearinghouse, National Clearinghouse on Careers and Professions Related to Early Intervention and Education for Children with Disabilities
The National Clearinghouse strives to improve learning results for children with disabilities by enhancing the nation's capacity to recruit, prepare, and retain well-qualified diverse educators for infants and children with disabilities.

Professions Clearinghouse
The Council for Exceptional Children
1920 Association Drive
Reston, VA 20191-1589
(800) 641-7824 V; (703) 264-9480
URL: http://www.special-ed-careers.org

V- voice TTY- text telephone, a devise for people who are deaf or hard of hearing

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PREPARING, RECRUITING, AND RETAINING SPECIAL EDUCATION PERSONNEL IN RURAL AREAS

Introduction

As we enter a new century one of the many challenges facing our nation's schools will be to attract and keep quality special education teachers. The need for special education teachers is on the rise and that need will extend far into the next century. By the year 2000, schools in the United States will educate nearly 3 million more children than they do today (Association for Supervision and Curriculum Development, 1999). Many of these children will have special education needs that will require the services of highly trained, well-qualified special education teachers. Nationally there is a considerable shortage of special education teachers (American Association for Employment in Education, 1998), a shortage that promises to continue well into the next century.

Special Education Teacher Shortages

In school systems throughout the United States the lack of adequately trained and certificated personnel has been, and continues to be, a formidable barrier to providing appropriate educational services to students with disabilities. This has been a perpetual problem for the last several decades. Approximately 29,102 special education teachers were needed but unavailable during 1990 to replace uncertificated staff and to fill vacancies (Fourteenth Annual Report to Congress, 1991). Krause (1993) reported that, nationally, about 26,000 **special** education jobs were vacant without qualified staff to fill them. In 1996, 335,035 vacancies were reported in special education, with the greatest number in learning disabilities, mental retardation, and cross categorical areas (Eighteenth Annual Report to Congress). The Nineteenth Annual Report to Congress (1997) reported that 26,206 special education teachers nationwide were not fully certified.

Not only is there a shortage of special education personnel, but many currently working in the field are leaving in alarming numbers. Gallagher (1993) reported on the tremendous attrition in the field of special education. This has been echoed by other writers (NASDSE, 1993; Schnoor and Brady, 1994; Lemke, 1995). Brownell, Smith, and Miller (1995) called teacher attrition one of the most difficult challenges facing special education, with special educators much more likely to leave the classroom than regular educators. Wald (1997) reported that the factors related to special education teacher attrition include role overload, lack of autonomy, and role conflicts.

At the same time, as the supply of qualified personnel has been shrinking, the demand for special education teachers has been growing almost exponentially (Cooley and Yovanoff, 1995). Silvestri (1995) has estimated that the demand for special education teachers will increase from 338,000 in 1994 to at least 545,000 in 2005, with a possibility of as many as 648,000 teachers needed. These facts have staggering implications for the recruitment, training and retention of special education personnel. But, even more importantly, they threaten to severely impair the provision of appropriate educational services to children and youth with disabilities.

Statewide

The situation in Texas mirrors that of the rest of the nation. The American Association for Employment in Education (1998) reported that the teaching fields of mentally handicapped, multiple handicapped, behavior disordered, learning disabled, physically handicapped, and visually handicapped are fields with very high shortages in Texas. Three of those areas (learning disabilities, physically handicapped, and visually handicapped) comprise three of the top four areas of critical teacher shortages in the state. The State Board for Educator

Certification (1998) reported that, for the 1996-97 school year, 18.9% of the special education teachers teaching in Texas schools were not fully certified for their assignment. The highest percentage of non-certified teachers in special education (35.8) were in rural school districts.

And, not only is there a continuing need for special education teachers, but there is a need for teachers appropriately trained in, and equipped with, the skills that special education teachers are going to need in the new century. As our student population becomes more diverse, as we move toward more inclusive schools, as the public pressure for accountability escalates, as the challenges and opportunities of technology multiply, we must prepare special education teachers who are capable of being successful in the schools of tomorrow.

A recent study conducted by the Department of Education at Abilene Christian University (1998) examined the types of skills needed by teachers in the coming decade. Data were collected from personnel officials in over three hundred school districts in Texas. The ability to work with diverse populations was one of the most important characteristics identified, with skills in technology also a high priority.

The geographic area primarily served by Abilene Christian University and the Big Country Center for the Professional Development of Teachers also has a strong need for appropriately trained special education teachers. Our local Alternative Certification Program, operated by Region XIV Education Service Center, has been diligent and successful in producing many teachers to address these shortages. However, a need still exists for additional teachers.

As part of a needs assessment process, a survey, followed up with a structured interview, was conducted by Abilene Christian University's Department of Education. Involved were representatives from school districts, universities, and the regional education agency in west central Texas. The interview consisted of questions regarding the perceived shortage of special education teachers in west central Texas and the type of preparation needed by such teachers.

Again, the critical shortage of special education teachers was emphasized, along with the need for such teachers to be trained to work in collaborative, inclusive settings and to be able to teach students from diverse language and cultural backgrounds. Responses also indicated a great deal of frustration on the part of special education teachers, with many contemplating leaving the field. Problems involved in retaining special education teachers included a perceived lack of administrative support, burnout, professional isolation, frustration with paperwork, and a lack of specific training in effective practices.

Another part of the needs assessment process involved the collection of data from regular education teachers, special education teachers, and principals in elementary and secondary schools in west central Texas. The study sought to determine the types of preparation needed by special education teachers in today's classrooms. Skills in collaboration, communication, technology, and effective strategies were noted as being important.

In addition, data was collected from career placement offices at universities in west central Texas. Data indicated many more requests for special education teachers than local colleges and universities are producing, even with the aid of alternative certification routes.

As a result of the information described above the following needs were identified in west central Texas:

1. There is a continuing need for special education teachers, especially in rural areas of west central Texas;
2. There is a need for training special education teachers in the unique aspects of teaching in rural schools;
3. Special education teachers must be prepared to work in inclusive, collaborative settings;
4. Special education teachers must be trained to use technology as an instructional tool;
5. Technology and other distance learning approaches should be utilized as a vehicle to make preservice preparation of special education teachers flexible and accessible;

6. Special education teachers must be selected and trained to teach in diverse, bilingual and multicultural settings;
7. A system of professional support must be developed and implemented for practicing special education teachers.

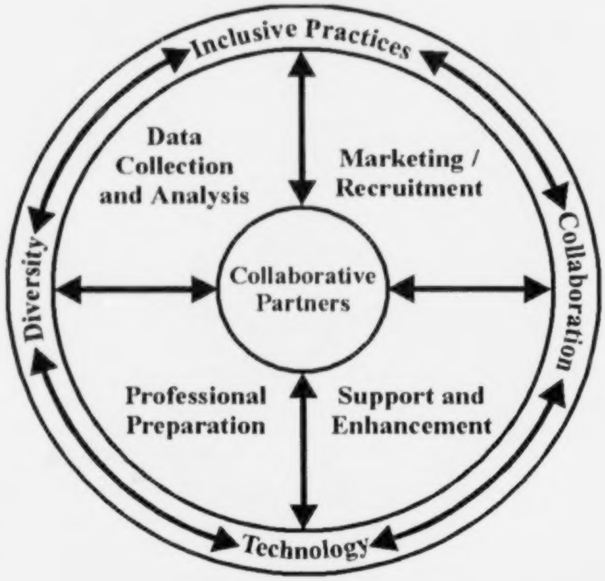
Project PRIME

Project PRIME (Preparing, Recruiting, and Retaining Teachers for Inclusive, Multicultural Environments) was born out of the rich literature on the problems of attracting and retaining quality teachers. We believe that recruiting teachers in special education, and then retaining those teachers in the field, requires solutions that are long term, flexible, responsive, comprehensive, and integrated. Project PRIME is a project funded by the State Board of Educator Certification to increase the number of well-prepared special education teachers. The grant was awarded to Abilene Christian University on behalf of the Big Country Center for the Professional Development of Teachers.

Project PRIME is based on a model proposed by Whitworth (1994). The essential elements of this model are:

- Data Driven: Data collection and analysis shapes and drives the system.
- Permanent: Personnel shortages in special education require long-term solutions.
- Flexible: The system will require frequent changes in the types of techniques/strategies needed and the available resources.
- Responsive: A successful system must respond quickly and effectively.
- Comprehensive: A good system should address every factor and issue impacting personnel retention and include all significant stockholders during its development and implementation.
- Integrated: The system should be structured in such a way that each part supports and complements the others.

Project PRIME, as illustrated by the model below, incorporates four components designed to address the element described above. These components are (1) Data Collection and analysis, (2) Marketing and Recruitment, (3) Support and Enhancement, (4) Professional Preparation.



Because Project PRIME utilizes each of these components and elements it has been a very comprehensive undertaking. Various activities have been conducted with each of the model's four components. A brief summary of the activities developed and implemented under each of the model's components is provided.

Retention

Project PRIME's retention component consisted of several activities. The project coordinator and project director wrote and compiled a manual for use as a retention tool for special education teachers. The contents were based upon the reported needs of special education teachers and included current topics such as collaboration, managing and implementing Individualized Education Plans (IEPs) and a discussion of solutions to common problems among special educators. The manual also includes a wide variety of web sites for special education teachers, information for contacting State resources, as well as national organizations for teachers and families of students with disabilities.

Project PRIME also established a peer support group by bringing together a core group of teachers to discuss their problems and concerns and to brainstorm solutions to those issues. As a result of these discussions, project staff developed a stress workshop and workshop manual specifically designed for special education teachers.

We met with beginning special education teachers in an effort to determine their needs and assisted them in accessing needed resources on topics such as whole language and discipline. One outgrowth of this meeting was a newsletter developed and disseminated to area special educators. The newsletter's purpose was to encourage and provide a vehicle for ongoing communication among area special educators and to inform special education teachers of resources and supports and activities available in the area to assist them in teaching students with special needs.

Finally, the project staff established a dissemination center of professional books, journals, videos, and children's literature. This resource center is available to any special education teacher who wishes to use it.

Recruitment

Throughout the year, the project staff also engaged in a variety of recruitment activities. We produced a professional video which highlights some of the rewarding elements of teaching in special education. The video emphasizes areas such as variety, challenge, and excitement. Copies of the video may be obtained from Abilene Christian University's Department of Education at (915) 674-2112.

Project staff also compiled a manual for university students interested in seeking financial aid. Financial assistance is available to a variety of students seeking careers in special education. This manual is designed to ease the process of searching for local, state, and federal dollars.

Faculty and graduate students visited a number of area high schools where they spoke to over 300 high school students-not only about the awareness of people with disabilities, but also about the possibility of choosing a career in special education. Many of the students with whom we spoke, reported that they would consider a career in special education as the result of the presentation.

A series of lunch meetings was also initiated with local leaders of the African-American and Hispanic communities. The purpose of these meetings was to initiate a dialogue regarding ways to encourage and support minority high school students in pursuing careers in special education. As a result of these meetings several activities were planned and implemented to bring local minority high school students to campus and to provide resources, such as the financial aid manual, to assist them in them in enrolling in college. An important outgrowth of this activity was closer and more collaborative relationship between the university and the local minority community.

Preparation

Project PRIME implemented a number of activities to improve the preparation of special education teachers. Project PRIME was designed to improve special education teacher preparation across several dimensions reflecting the changing role of special education teachers: Inclusion, Technology, Diversity, and Collaboration.

Meetings were held with representatives of teacher preparation programs in the area including McMurry, Hardin-Simmons and Howard Payne universities, and the Alternative Certification Program at Region 14 Education Service Center. These meetings focused on trying to establish collaboration and coordination among all providers of preparation to prospective special education teachers. Using the manual *What Every Special Educator Must Know: The International Standards for the Preparation of Special Education Teachers* (Council for Exceptional Children, 1996), every course and preparation activity provided by each entity was examined and discussed. The result was a revised sequence of courses, requirements and experiences for special education teachers to reflect current needs of practicing special educators.

Various consultants were also brought to campus to discuss ways that courses could be revised to reflect better preparation in diversity and multicultural issues. Consultants presented campus-wide workshops and also engaged in small group discussions with faculty members. As a result of these discussions changes were made in existing courses and a dialogue created for changes and additions to programs and activities that would improve prospective teachers' ability to teach in multicultural settings.

Existing special education courses were also revised to reflect more of an emphasis on technology and on merging regular and special education. Course objectives and requirements were changed to emphasize these issues, and appropriate presenters and activities integrated into classes.

To further highlight the use of technology and to provide more flexible preparation options, two special education courses were redesigned into an Internet-based format. This makes it possible for students to take two of the special education classes offered by ACU over the Internet. The format is interactive, allows for customization based on student needs and background, and provides for exams to be taken on-line.

Data Collection and Analysis

Fundamental to any effective personnel recruitment and retention system is information. It is the foundation upon which the system rests. Before appropriate strategies and activities for recruiting, preparing and retaining special education teachers can be developed and implemented it is essential that they be based on reliable data regarding what is needed and what is likely to work. Then, as the model is implemented, data will assist in insuring that strategies and activities are effective and continue to produce the desired results. A reliable system of data collection and analysis shapes, drives, and guides the process of personnel recruitment and retention. Among the types of data needed are;

- The discrepancy between supply and demand of special education staff,
- The amount of shortages by personnel category,
- The number of special education staff being prepared by various entities,
- The number of special education teachers leaving the field,
- The reasons why special educators leave the field,
- The effectiveness of special educators in the jobs for which they are employed,
- The satisfaction of special educators with their preparation,

- The extent to which the educational needs of students with disabilities are being met,
- Results regarding the effectiveness of various types of strategies and techniques for personnel recruitment and retention.
- There must be a mechanism in place and operating to collect this information, analyze it, and provide it in an understandable format to those who will be using it to plan activities and strategies.

In order to meet the requirements of this component of the Project our efforts were combined with those of a statewide project funded by the Texas Education Agency and coordinated by Region 4 Education Service Center in Houston. This project was designed to create a statewide system for tracking, predicting, and analyzing the special education personnel needs in the state and then for providing that information in a format that can be disseminated and utilized by school districts and personnel preparation programs in the state. The director of Project PRIME served as a member of the statewide task force that met periodically over a six-month period to develop the instruments and procedures for this data collection and analysis process. For more information regarding this contact the Special Education Department at Region 4 ESC.

Related Activities

A number of related activities have also been implemented and continued as a result of this project. A website regarding the project and providing resources and a forum for practicing and prospective special educators has been developed and is being maintained. The site can be accessed at http://www.acu.edu/academics/education/prime/index.htm

Project staff also have joined forces with the ACU Multicultural Enrichment Committee. This group continues to explore and develop activities and programs to make the ACU campus more diverse, to increase the awareness and understanding of both students and faculty regarding multicultural issues, to improve the success of students from minority cultures, and to increase faculty members ability to prepare students for a multicultural society.

Although funding for the project has officially ended a number of activities are planned to continue. These include:

- Meeting with preparation entities to continue collaboration and coordination of programs
- Meetings with area special education teachers to determine needs and create a dialogue for solutions to retention, stress, and burnout.
- Pursue the establishment of a local chapter of the Council for Exceptional Children
- Continuation of a local newsletter for special education teachers
- Maintenance and dissemination of resources to area special educators
- Marketing of the video and manuals to prospective special education teachers.

In addition, a number of other activities have been compiled as possibilities to address the issues related to the recruitment, preparation, and retention of quality special educators to teach our students with special needs. These can be seen in the attached Appendix.

APPENDIX

Additional Activities to Assist in Recruiting, Preparing and Retaining Special Education Teachers

Recruitment

1) The development and distribution of videotapes, brochures and other informational and promotional items (posters, etc.) on special education as a profession. These items will be distributed to high school counselors, community colleges, and career and vocational placement offices.

2) A Speakers' Bureau to address high school and college students. Special education teachers, support personnel, representatives of various service providers, and parents of children with disabilities will be recruited for the speakers bureau.

3) A media campaign directed to specific geographic areas and to specific groups (i.e. displaced homemakers, bilingual, etc.).

4) Creative promotional programs designed to stimulate interest in special education professions. For instance, programs on disability awareness developed for presentation to area middle school and high schools with an emphasis on special education as a career option. It is important to contact youth early because research indicates that young people make career decisions and develop self-concepts as workers early in life (Szymannske, Turner, and Hershenson, 1992).

5) Presentations at state conferences/conventions, etc. (i.e. Future Educators Association, etc.). Formal presentations, as well as displays, booths, etc. provided to local, regional and statewide meetings of student groups, career fairs, and other appropriate groups. For example, a local non-profit organization sponsors a large and very popular education and health fair every year that attracts parents and students from throughout the area. A booth on special education teaching could be developed and set up at this fair.

6) A student ambassadorship program that involves university students majoring in special education returning to their former high schools to speak to students about special education teaching as a career.

7) The establishment of tutoring programs at middle schools and high schools to acquaint students with the satisfaction and possibilities of working with individuals with disabilities.

8) Activities to locate potential candidates for special education teaching from other job positions, such as teacher assistant, custodian, volunteer service provider, and parents of children with disabilities.

9) The development of scholarships and other incentives to select special education as a career option.

10) Building on the Minority Teacher Identification and Enrichment Program described by Banks (1996), a mentor-mentee program could be implemented for prospective minority special education teachers. Prospective teachers would be identified and linked with mentors who are special education teachers of color. Mentors would assist mentees by providing educational programs and activities designed to improve their literacy and mathematics skills, and would help increase their awareness and understanding of the special education profession. In addition, they would share information on financial and academic support resources available. Meetings would be established on a regular basis for mentors and mentees. Training for the mentors would be provided and a handbook developed describing the training, as well as expectations, recommended activities, and available resources.

11) A second aspect of the above program would be summer programs to capitalize on the mentoring process. During this program, students would attend classes designed to enhance their basic academic, study and social skills. Students would also participate in panel discussions and interact with other teacher education majors. University professors, counselors, mentors, and other practicing teachers would assist in the implementation of the summer program.

12) Once prospective minority special education teachers enter the preservice program, specific activities could be developed to support their academic, social, and cultural needs and enhance their success as students. Faculty members and upperclass students of color would serve as mentors and advisors. Other resources at Abilene Christian University such as Academic Advance, the Learning Enhancement Center, Upward Bound,

and the Student Success program could be used to create a network of support for the student. Rather than wait until a problem develops, this support system would be proactive, meeting with students on a regular basis so that assistance and resources can be provided as quickly as possible.

13) A program could be developed to assist minority teacher education candidates with required standardized tests, specifically the TASP and the ExCET. Data would be analyzed to determine areas of most frequent difficulty and those areas targeted. Existing university resources would be organized and accessed to provide assistance according to the needs of the individual student. This would include instruction and practice on test-taking strategies, assistance on improving math, reading, or writing skills, and remediation in specific content.

14) Each One Reach One (Prater and Obiakor, 1991, 1992) is a program that could be adapted and incorporated into Project PRIME's Marketing and Recruitment Component. This program was developed through a grant funded by the Tennessee Higher Education Commission to provide financial support, nurturing, and encouragement to increase the number of minority male teachers in elementary classrooms through recruitment, retention and placement.

Retention

1) A Teacher-Helping-Teacher network where special education teachers with similar instructional interests and assignments can meet to share ideas and resources;

2) A Resource Bank of college and university faculty members to address specific issues, topics or problems;

3) A faculty exchange program with local colleges and universities;

4) A staff exchange program where school district staff exchange jobs with staff in other types of positions within the district;

5) A mentorship program for new special education teachers;

6) Continuing education programs consisting of workshops and seminars on specific topics as identified through the needs assessment process;

7) A network of model classrooms where special education teachers can see innovative and effective techniques and practices demonstrated;

8) Videotaping effective teaching techniques of local teachers for use during inservice and staff sessions;

9) Training to building principals to better support special education personnel;

10) Easy access to needed training using technology;

11) Minigrant programs for teacher designed projects;

12) Disseminate information on local, regional, state, and national sources of funding for classroom projects;

13) Access to staff development resources such as books, journals, and videotapes;

14) Orientation programs for new teachers;

15) A Community Friends program to assist new teachers in locating and orienting to the community;

16) The involvement of local business and community leaders in working with special education staff to provide resources and assist with funding staff development activities;

17) Induction programs for new teachers with continued professional development peer teaching, and an emphasis on assistance rather than evaluation.

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WHO ARE THE PARAPROFESSIONALS IN RURAL ELEMENTARY SCHOOLS?

(It should be noted that the names used in personal communications have been changed to protect the identity of the paraprofessionals interviewed.)

Inclusion of children with special needs at the elementary level is more prevalent than any other grade level. Children in elementary classes are more accepting of children with special needs. Teachers in public schools are working toward successful integration of all children into their classrooms. All children have a variety of strengths and needs. These differences require the classroom teacher to be more creative and varied in instruction and assessment. However, there is an added burden of standardized tests that has crept into the schools. With the federal and state governments requiring higher standards, there is an increase in teacher accountability. Many teachers and parents believe that the inclusion of children with special needs will lead to problems in reaching those standards. The amount of level of training of most of the paraprofessionals is limited (French, N., & Pickett, A., 1997). More and more children with special needs are also being held accountable to those new standards. The need for these children to meet these standards helps to increase expectations of children with special needs, which has its pros and cons. Some of the children served in special education programs can meet these standards with modifications but many cannot. How can we help these children and the inclusion classroom teachers be successful in their attempts at reaching higher standards? The answer has been the use of paraprofessionals who can work with the teacher and the child with special needs. The next question then is, who are these paraprofessionals and what are their qualifications?

Paraprofessionals have a tremendous impact on programs, safety and emotional well being of the children that they serve. The diverse backgrounds and prior experiences of the paraprofessional is as varied as the children that they serve. The better the orientation, training and supervision of these persons, the more successful they will be in the classroom (Beardsley, 1998). The use of paraprofessionals in the inclusion classroom benefits both the regular education teacher as well as all the children in the class (Beardsley, 1998; Marks, Schrader, & Levine, 1999). Educators rely heavily on the paraprofessional to carry out many duties related to the education of the child with special needs. Some are not comfortable with this additional responsibility because they do not feel qualified (Marks et al., 1999), while others feel that they are not being allowed to use their expertise and training because of their status in the classroom.

> Wolery, Werts, Caldwell, Snyder, & Lisowski (1995) state:
> The use of paraprofessionals on the classroom has not been extensively researched ... [and] further research is needed to determine how decisions are made to provide teaching assistants, how they are used in the inclusive classrooms, and the training they need to support the general education teacher (pg 24).

Less research has been completed in rural districts, and it appears that in some districts the placement of the paraprofessional is made strictly by need rather than ability (T. Smith, 1/1999, personal communication; K. Brown, 1/1999, personal communication).

The background experiences of paraprofessionals in all areas of the country vary. However, in rural areas the experiences seem to be even more varied because of the number of available people in the work force. There are many highly trained people who are waiting for a teaching position to become available as well as people who hold no more than a high school diploma. With the changes in welfare, more people are searching out entry level positions, and positions which will work with their child's school schedule to reduce the burden of before or after school care (French, 1999).

The ability of the paraprofessional is not always looked at when making placements within the school. Often, as positions become available, they are advertised and interviewed for. The best applicant may not have the necessary skills to best meet the needs of the child, yet they are hired because they are the best of the pool. How much does 'knowing someone' play a role in the selection of workers? In some school districts, it plays a huge role (T. Smith, 1/1999, personal communication). The teachers who work with the paraprofessional may not be aware of the ability level of that person and may have expectations that are too high or too low. Some teachers who work with the paraprofessional with teacher certification feel threatened and feel the need to dominate or strictly clarify the role of the paraprofessional in the classroom and may not use them to their full ability (Marks et al., 1999). Not all paraprofessionals are trained in methods of teaching that will benefit the child and this may lead to poor education (Marks et al., 1999; K. Brown, 1/1999, personal communication). Parents often seek out the paraprofessional regarding the progress of their child, since they believe that the paraprofessional has greater contact and more knowledge of the child than the teacher. This direct contact fosters the paraprofessionals belief that they are the liaison between the parents and the school personnel (Marks et al., 1999; B. Casey, 1/1999, personal communication).

Looking at the current workforce of paraprofessionals in rural areas will better help in capitalizing on their experiences. Placing these people in an optimum situations and providing the appropriate training can only benefit the inclusion classroom. Finding a means for better compensation will aid in retainment and foster success for the child with special needs.

This research looked at three school districts in western Massachusetts. The nearest metropolitan area is 45 miles west in another state. The nearest metropolitan area within the state is southeast, approximately 70 miles away. The immediate area was an old mill area and are made up of bedroom communities. There is a small state college in one of the towns, a private liberal arts college in another and a community college just south of the three towns. The population varies from very wealthy to very poor in all three towns. In district number one, there are three elementary schools, a middle school and a high school. District two consists of one elementary school and has a regional high school that houses students at both middle and high school levels from three small school districts. The third district is made up of two elementary schools, a middle school and a high school.

Six paraprofessionals at the elementary school level from each district were interviewed for this study. Each person was initially hired as a special education paraprofessional and a copy of their job descriptions were examined. When planning for this research, districts were asked specifically to try to identify at least two people in each of the following categories; high school diploma only, college degree without teacher certification, and college with teacher certification. Interviews were conducted at a place that was most convenient for the participant. A set of 13 questions (Appendix A) were asked of each participant as well as some demographic information. The following is the demographics of the interviewees.

All participants were female and varied in age between early 20's to mid 50's. Levels of education worked out exactly as planned, there were 6 participants in each of the levels of education. Hourly wages varied from $6 to $12 per hour, with the majority receiving approximately $8 per hour. In two of the districts, the paraprofessional staff are unionized and also receive benefits. Years on the job varied from as little as 5 months to as long as 15 years.

The following discussion will look at the responses to each of the questions asked. The first questioned was asked to get an idea of what the applicant thought the position was going to be. Most of the applicants felt that when they initially looked at the job description, they believed that they were being hired to work with children with special needs, either one-on-one or in a small group setting. For those with a degree, I wanted to know why they took the position. One stated that she did not have a degree when she first took the position, but continues in the position because of the hours. She also does not want teacher responsibilities. All applicants stated that they needed a job and this fit their schedules. Some stated that this was a way to get into the district and are hoping to secure a full time teaching position.

I then showed all applicants a copy of the job description that was given to me by their district's superintendent. I asked them to tell me whether or not the job description reflected the job that they currently do. In one district the response was that it was very close because the description was one that was recently developed in conjunction with the paraprofessionals. All others felt that the job description was fairly accurate. The forth question asked the participants to tell me what they felt the teacher's expectations of them were. All responded with helping the children that needed it and to help keep the children safe. Some added that the teacher sometimes expected them to perform some academic tasks such as administering spelling tests to the group, planning the child with special needs daily schedule, help prepare materials and provide some direct instruction. Other responsibilities included supervising lunch a recess duties, office work such as copying, and handling behavior problems.

The next question related to the participants belief that they have the skills and qualifications to do their job. Most felt that they do now but some stated that they did not initially. This question led directly into the next which related to training offered by the school district. All participants stated the districts provided training but that it was not always adequate. Types of training varied among the districts with most receiving first aid and CPR, limited special education information- specifically related to disability areas, some on discipline issues, and other workshops. All participants felt that more training was necessary and that the it needed to be consistent and useful. Behavior management issues seemed to be the most important followed by specific disability areas. It should be noted that Massachusetts is non-categorical and specific disability types are often not discussed. Some of the paraprofessionals interviewed wanted training in areas that would help them with curriculum modifications and hands on materials that could be used with the children.

After the training issues, I wanted to know what other supports did they feel were available to them. Most stated that the other paraprofessionals were their main support followed by inclusion facilitators, principals and teachers. Other consultants or specialists were mentioned for specific disabilities. The next two questions were asked together: Are there things that you would like to do, but are not allowed to do because of your position? And, are there things that you are asked to do that you feel are not a part of your position? It is interesting to note that the paraprofessionals who were in their positions for the shortest amount of time felt that they was nothing that they wanted to do that they could not do nor were they being asked to do things that were not what they expected their position to be. Those in their positions for more than two years had other things to say. Most felt that they were not a part of the decision making process in general, i.e. the IEP process, that their input was not seen as important so their suggestions were not taken seriously by the teacher and the team. They also felt that they were often expected to carry out the "bad guy" jobs such as disciplining children. Some felt that it varied with the individual teacher, as they had worked with a variety of teachers and some expected more than others. Planning the child's day was identified as being a task that they felt was beyond their training and responsibilities.

The next few questions related to their personal training and compensation. All participants were willing to take college courses to better support them in their positions. They all seemed to want information related to specific disabilities and curriculum modifications. Most do not seek out this method of training because they receive no compensation or reimbursement for the work. They would prefer to take workshops offered by the school district because there is no cost to them. Salaries do not vary with the amount of education. In two of the districts, all paraprofessionals have the same salary no matter what the job. In the third district, the type of position that they applied for determines salary. For example, a one-on-one intensive special needs paraprofessional gets paid at a significantly higher wage than a classroom paraprofessional.

The final question specifically asked why they felt there was a high turnover in paraprofessionals. All stated that salary was the number on issue. In the non-unionized district, the lack of benefits also played a key role. Non monetary reasons for turnover related mainly to stress of the position, lack of support and lack of substitutes for the paraprofessional. In some situations, if a paraprofessional is going to be absent and no substitute is available, either the other paraprofessionals within the school are responsible to cover, usually giving up their lunch or break time, or in the case of a one-on-one position, the parent of the student is contacted and encouraged not send their child to school for the day. Some of the respondents stated that they felt as though they were being pulled in many directions and had to answer to too many people. Some with degrees stated that many leave for better positions with higher pay.

I asked the participants to give me suggestions that might alleviate this turnover. Some of those suggestions include: 1) finding a way to better compensate the paraprofessional. Many believed that pay scales should be set up similar to teacher scales. The paraprofessional would receive increases in wages based on years of experience as well as college credits earned. Paraprofessionals that have been in their positions for a number of years stated that they have not seen a salary increase except when minimum wage increases. They also believe that they should be compensated or given tuition reimbursements for college courses similar to teachers. 2) Participation in professional development days. Many of the paraprofessionals did not feel that they were wanted at the district professional development activities and the ones they did attend, were done on their own time without compensation. Some of the training did occur during their work day, but most were not. 3) More support. The districts need to find a way for more support to be given by the special education teachers as well as from the administration. Some believe that the special education teachers are overworked and are unable to give the direct support needed in many situations. 4) Communication should be done through one person. Communication is often made by individuals, parents, teachers and therapists, to the paraprofessional and the information is not always consistent. Some teachers do not appreciate the paraprofessional speaking with the parents directly and this can cause additional stress for the paraprofessional. If communication were made via one person, then information would be more accurate.

I believe that the suggestions made are reasonable and districts must find a way to meet as many of these suggestions. Monetary issues are always a frustrating one and not easily solved. Districts that are not unionized should seek out information that will help them to become unionized. The benefits, both monetary and other, seems to help in retention of personnel. In rural areas, school districts should make use of other professionals in the community to meet the needs of the employees. In this area, the college is very seldom contacted to offer programs within the schools. Workshops that are given, often are not offered to the paraprofessional or they are expected to attend on their own time. Paraprofessionals are often more knowledgeable about individual students and their input must be encouraged and taken seriously. No matter what the level of training, they have a lot of direct contact with the students. Teachers who work with a paraprofessional with a degree or teacher certification should not take advantage of the person, expecting them to carry out teaching duties, unless agreed upon by both parties. Some teachers, on the other hand, need to understand the expertise that those with degrees have and take their input more readily. I think we all realize that the lack of special education personnel in rural areas is a concern, but reasonable case loads are necessary to best meet the needs of the children whom we serve and the paraprofessionals who help us to meet those needs.

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Appendix A
Interview Questions for Paraprofessionals

Demographic information:
Gender: M F
Years employed in current position: ___________________
Highest degree earned: High School ___ BA/BS ____ MA/MS ____ Other____
If you have a degree, do you have teacher certification? Yes ___ No ___ Level ______
Approximately hourly wage: _______________

1. What were your expectations of the position when you applied for it?

2. If you have a degree, why did you take this position?

3. This is a copy of you job description that was provided by your school district's administration. How closely does it reflect what you actually do?

4. What are the classroom teacher's expectations of you?

5. Do you feel that you had/have the qualifications to do your job effectively? Why or why not?

6. Have you received training to help better prepare you for this position? If yes, what types?

7. Do you feel that more training should be available? If yes, what types? If no, why not?

8. What other supports are available to you?

9. Are there things that you would like to do but are not allowed because of your position? Are there things that are you are being asked to do that you feel are not part of your position?

10. Would you be willing to take college courses to better assist you in your position? What topics would you want to take?

11. Are you compensated for taking college courses either in salary increases or tuition reimbursements?

12. If you have a degree, do you get paid a higher salary than those without a degree?

13. There is a lot of turnover in paraprofessional positions. Why do you think this happens? How can we change that?

14. Any other information that you would like to share regarding your position?

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